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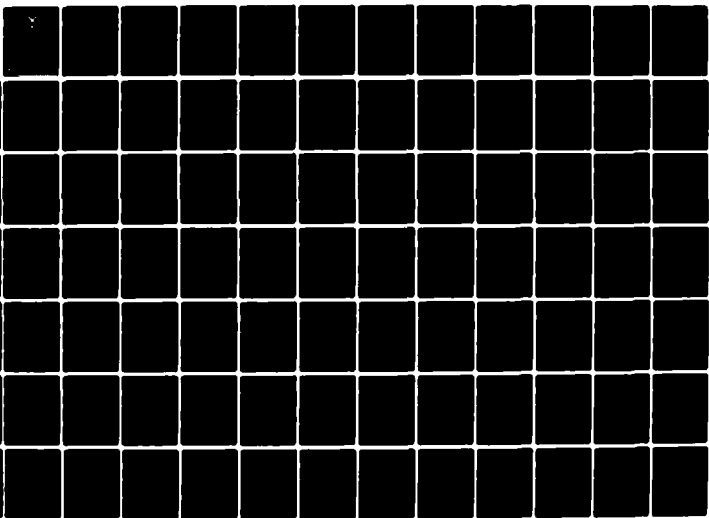
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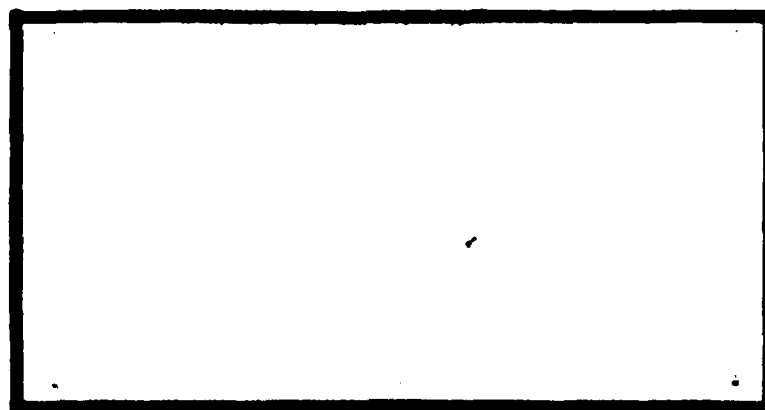
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BASE AUDIOVISUAL SERVICE CENTER
CONTRACT CONVERSIONS: A FOLLOW-UP
COST EFFECTIVENESS STUDY.

Charles H./Christopher/ Captain, USAF
Lois R./Olson/ Captain, USAF

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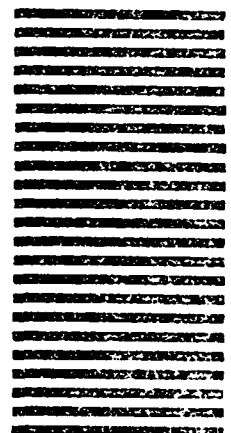


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HQ MAC/XPPV requested a study to evaluate the first year cost effectiveness of MAC base audiovisual service centers which converted to contract operations in FY-80. The purpose of this thesis was to evaluate the initial year of contract base audiovisual services to determine if they had been as cost-effective as initially projected under the OMB Circular A-76 criteria. This was accomplished by a series of cost comparisons using OMB Circular A-76 criteria on the following bases: Travis, McChord, McGuire and Pope AFBs. Along with the cost comparisons, a benefit analysis was accomplished using two methods. First, a comparison of the acceptable quality level specified in the statement of work against the contractor's performance. Second, interviews were conducted with prime users of audiovisual services to determine their level of satisfaction of contractor performance. A benefit cost analysis was performed using the cost comparisons and the benefit analysis. The authors concluded that the conversions of the audiovisual service centers to contract had been cost-effective under the criteria of OMB circular A-76, but that the overall quality of the services and products provided was acceptable in only three of the four bases.

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BASE AUDIOVISUAL SERVICE CENTER CONTRACT CONVERSIONS
A FOLLOW-UP COST EFFECTIVENESS STUDY

A Thesis

Presented to the Faculty of the School of Systems and Logistics
of the Air Force Institute of Technology

Air University

In Partial Fulfillment of the Requirements for the
Degree of Master of Science in Logistics Management

By

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Captain, USAF

Lois R. Olson, BS
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June 1981

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This thesis, written by

Captain Charles H. Christopher

and

Captain Lois R. Olson

has been accepted by the undersigned on behalf of the
faculty of the School of Systems and Logistics in partial
fulfillment of the requirements for the degree of

MASTER OF SCIENCE IN LOGISTICS MANAGEMENT

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CHAPTER I

INTRODUCTION

Background

Since 1955 the United States has had a policy in writing concerning how it will obtain the commercial or industrial products and services it needs, as illustrated by the statement:

The Government's business is not to be in business. Where private sources are available they should be looked to first to provide...goods and services needed by the Government [24:2].

This Federal policy is presently printed in the Office of Management and Budget (OMB) Circular A-76. OMB Circular A-76 (revised March 1979) on "Policies for Acquiring Commercial or Industrial Products and Services Needed by the Government" reaffirms the Government's general policy of reliance on competitive private enterprise for goods and services when feasible, and when economically beneficial to the Government (24:2). This policy has become increasingly noticeable in the daily operations of most military bases as more and more support services are supplied by contractors instead of being performed in-house.

OMB Circular A-76 outlines the two possible ways the Federal Government will acquire products and services

from Commercial or Industrial Type Activities (CITA). The first is through a government CITA, defined as one that "is operated and managed by a Federal executive agency and which provides a product or service that could be obtained from a private source [24:2]." A government CITA can be composed of military and/or Federal civil service personnel, and is also referred to as an in-house operation. The second method is through a private commercial source, which is, "a private business, university or other non-Federal activity...which provides a commercial or industrial product or service required by Government agencies [24:3]."

OMB Circular A-76 builds on three equally valid policy objectives: first, the Government is to rely on the private sector to provide the CITA services needed when they are available; second, the Government must maintain certain functions that are inherently governmental in nature as in-house operations; and lastly, the Government will aim for economy through cost comparisons.

There are four basic reasons why the Government needs to keep certain functions in-house. First, there may not be a satisfactory private commercial source available, or the available private source may cause an unacceptable delay or disruption of an essential agency function. A second justification has to do with national security. There are some jobs that must be filled by military personnel because they are utilized in or subject to deployment

in combat or a direct combat support role. Third, there are some jobs needed for training in those skills exclusively military in nature. Lastly, there are some jobs needed to provide appropriate work assignments for career progression or as a rotation base for overseas assignments. If any of the above reasons are given for an in-house versus a private CITA, very specific justification must be given and approved.

Not in every case will the Government contract with a private commercial source, even though one may be available. The third policy objective of OMB Circular A-76 is to determine the most economical means available by use of cost comparisons. This means a rigorous comparison of contract costs versus in-house costs is to be used, and the present method of cost analysis used formats outlined in the OMB Circular A-76, Cost Comparison Handbook, which was released as a supplement to OMB Circular A-76 in March 1979. If the Government can provide the product or service in question at a lower cost, a government CITA may be authorized (24:1-9).

The Government's policy of relying on the private sector was originally stated in January 1955 by the Bureau of the Budget (BOB) (later renamed the Office of Management and Budget) with the publication of BOB Bulletin 55-4, and its subsequent revisions in 1957 and 1959. However, the policy then was very general and consequently not very well

enforced. An investigation of the policy was reported to Congress in June 1964 by the Subcommittee on Manpower of the Committee on Post Office and Civil Service. The report was critical of the ways the policy had been interpreted, particularly of interpretations where restrictive civil service manpower ceilings were the prime reason used for contracting out, even though in many instances the contract personnel were more expensive. The report also emphasized that realistic cost comparisons were not being made. The subcommittee recommended that the BOB revise its policies and develop definitive comparative cost data relating to contractual versus in-house operations. BOB Circular A-76 (later renamed OMB Circular A-76) was shortly thereafter published in 1966 giving guidelines and costing procedures to be used for cost comparisons (10:1-50).

During the early years of implementing the A-76 guidelines, the estimated personnel costs of using civil service employees most of the time undercut the private commercial costs. This brought complaints from the private sector that they were not being treated fairly in the market. An Army Procurement Research Office report on Commercial/Industrial-Type Activities (CITA) published in 1976 concluded..."The CITA program is ineffectual and, in short is not working as intended to promote reliance on the private sector...it appears to have been implemented merely to comply with policy statements [13:95]." After

much study, a revision of A-76 was made in October 1976 which provided clear guidelines on how to conduct cost comparison studies.

A major change in these clearer guidelines was the raising of the standard cost factors used for computing the cost to the Government of Federal employee retirement and insurance benefits from 8.44% to 28.7%. Shortly after the publication of these revised guidelines, the FY-78 Defense Authorization Bill went through Congress and included a reduction of some 5,000 manpower spaces (9:40-41). DOD planned to absorb the manpower reduction in the support services areas, rather than in the combat forces, and planned to use A-76 criteria to identify and select functions which would be contracted out. The Civil Service union, the American Federation of Government Employees (AFGE), meanwhile had responded to the revised A-76 with a lawsuit charging that the cost factors were too high and were pricing them out of the market. OMB in turn responded by a review of OMB Circular A-76 implementation in June 1977, and also temporarily lowered the retirement and insurance cost factors to 18.1%. This reduction proved too late, however, as Congress, in the FY-78 DOD Appropriations Act, incorporated a moratorium on contracting out pending the result of the joint review by DOD and OMB. An immediate consequence of the moratorium was that the 5,000 manpower spaces deleted by the FY-78 DOD Authorization Bill could not now be contracted

out. Various actions were used to continue the services until the end of the moratorium such as freezing assignments of the remaining military personnel, temporary hire of civilians, and TDY augmentation (25).

The moratorium officially ended 15 March 1978 when the Air Force announced it was again planning to conduct in-house versus contract cost comparison studies of several base level activities. A news release listed 48 locations for review of one or more of the following functions: audio-visual services, custodial services, supply, food services, training support, trainer fabrication, refuse collection, fuels storage, family housing maintenance, laundry and dry cleaning, tracking facility support, precision measurement equipment laboratories, military aircraft storage and disposition functions, aerospace guidance and metrology center functions, radar maintenance and base operating support functions (28). The authorization to proceed with the studies was received from HQ USAF/MPMX on 4 September 1978. Each major command was instructed to draw up milestone charts for each study which would set target conversion dates "as early in FY-79 as possible, but no later than FY 4/79." The studies were to be conducted following the policies and procedures in AFM 26-1, Manpower Policies and Procedures, to determine which forms of manpower should be used to accomplish essential Air Force workloads (5).

Quoting AFM 26-1:

The Air Force workload may be accomplished by three types of manpower: military, inservice civilian employees, and contract services manpower. Past experience indicates that all three types of manpower have been responsive and dependable, relative to accomplishing sensitive and important workloads. Various factors promote and restrain the use of each type of manpower resource. The predominant influence is the necessity to maintain an optimum military manpower posture, at a level that will efficiently meet combat and direct combat support requirements. Other major considerations include requirements to: (1) Maintain control of the work force with military and inservice civilians; (2) Comply with established manpower ceilings; avoid personal service contracts; (3) Rely on the private enterprise system to the maximum possible, consistent with national interest requirements; and (4) Use the least costly form of civilian manpower where relative cost is the deciding factor [35:p.1-1].

Later paragraphs elaborate on exactly when each type of manpower will be used, emphasizing that the first step is to determine when military personnel are essential. For example, a position is determined to be military essential when it is for combat, direct combat support, indirect combat support, career progression, or a limited list of other reasons (35:pp.1-3 to 1-4).

In the periods before, during, and after the moratorium, several research studies were conducted highlighting the problems involved in contracting for services and making recommendations on how to solve them. The majority of the reports identified problems in writing adequate initial Statements of Work (SOWs) and in assuring a contractor was performing properly once the contract had been let. The

most frequent recommendations were that standardized guidelines needed to be established on how to write statements of work so that valid cost comparisons could then be made, and that there needed to be a uniform method of assuring that the contractor was performing at the required quality level (8:1).

In the overall area of contracting for products and services, a recent Rand report (4:17) concluded that there has been a "thrust toward greater use of contract hire personnel in the DOD since the Vietnam War." The report's data indicated a one and one-half to two times greater amount of contract-hire personnel in the post-Vietnam time frame. This data was interpreted in the report as possibly reflecting a response to the lowered manpower ceilings which occurred after Vietnam. The ceilings in effect forced the Government to contract for requirements, since many functions previously performed by the deleted positions still needed to be performed.

R.L. Nier in 1976 analyzed some of the problems associated with DOD service contracts, and noted that inadequate specifications, the lack of advance planning, and contract administration accounted for 93 percent of the reported problems. He listed several examples in OMB Circular A-76 of ambiguous wording that says "may" rather than "will," and concluded that the most controversial areas were the cost comparison criteria and violations of the Civil Service Laws (22:6,9,25).

In 1977 L.R. Hawkins studied the effectiveness of service contract specifications and concluded that one of the mainstays to acceptable service contracting was an adequate description of the tasks required..."It is well accepted in procurement channels that this emphasis shift has not occurred, and the definition of work or task requirements continues to be an enormous problem. Since these items are vital in communicating to a potential contractor the Government's needs, their importance cannot be minimized [12:8]." Hawkins made criticisms to the effect that the specifications written for service contracts often were ambiguous and did not contain the necessary quality assurance factors to measure the required work. He recommended that abstract terms in the specifications should be related to examples. He also recommended that the DOD should develop a course on base level contracting, and should include a strong section on service contracting (12:19).

A U.S. Army Audit Agency report on Commercial and Industrial type functions in October 1977 found that the reliability of the cost comparisons, which provided the basis for determining the most economical method of performance, was low and could be improved. The recommendations were: to revise the guidance for computing selected elements of in-house cost, to include milestones to be followed, to conduct surveys of the local commercial market prior to requesting bids, and to set standards and criteria for estimating contract administration costs (31:4-6).

T.A. Conner in 1978 looked at service contracts and their administration and concluded that the most complaints under this type of contract did not result from the way the contract was written. Rather, government control and/or direction of the contractor personnel was the most often cited problem (3:23). Interviews with base procurement office personnel indicated that the Technical Representative of the Contracting Officer (TRCO) concept had had mixed results and suggested that a new approach to administering service contracts was needed. They indicated four major areas that needed improvement in the Statements of Work: 1) listing of essential versus nonessential requirements, 2) a method of adequately expressing quality assurance testing requirements, 3) the acquiring of technical data, and 4) what management data should be delivered under the contract. He also identified industry complaints of SOWs that were too complicated to comprehend and also SOWs that were not definitive enough. This caused contractors not to submit bids because of the uncertain tasks required (3:40-41). Conner's final contention was that administration of service contracts was poor and the same mistakes were being made year after year (3:57-59).

D. Harden in 1979 looked at problems which occurred in writing service contracts starting from the point in time that the decision was made to convert a CITA to contract rather than to remain in-house. She noted the need for

obtaining and writing accurate performance specifications, and commented that often after a contract was awarded, it turned out to be inadequate and did not cover all that was wanted. An example contract was given which had 105 changes resulting in an added cost of \$180,000 (10:15).

The problem of changes in the contracts once they had been let was one of the many addressed by K.A. Roberts, who in 1978 explored the pros and cons of contracting for goods and services by the USAF. He gave examples of Research and Development (R & D) contractors bidding in on a contract (bidding in basically is where a contractor deliberately bids low in order to win the contract, but with the intentions of making the losses up later through changes) and winning, then suing on grounds that the procurement specification was not adequate to bid properly and asking for higher costs (27:54). On the other hand, he gave instances of where replacing government guard services with a private contractor saved 30 percent of the previous cost. Another example was cited where replacing government building cleaning personnel with contractor personnel gave a 32 percent cost saving (27:48).

One of the more important studies was headed by K.L. Gerken from November 1976 until April 1978 for the Air Force Logistics Management Center on identifying and resolving some of the historical problems of base level services contracts. It highlighted the need for both definitive statements of work and a usable quality assurance

technique. The conclusions were that definitive work statements could be developed using output or performance oriented SOWs rather than the historical process or method oriented statements. A procedure of structured analysis was described to break down the work output requirements into individual, measurable elements. Quality control methods, in a control loop, could then be used by the contractor to measure output against requirements. Quality assurance plans, which employ MIL-STD-105D random sampling techniques, are then developed for the government to measure performance against the requirements standards. As a result of this study, AFR 400-28 was implemented. AFR 400-28, Base Level Services Contracting, except for Volume I, is still in draft format. It prescribes the systematic means for developing statements of work and quality assurance surveillance plans just discussed, and tells how to write performance into statements of work (8:1-7). Each volume, except Volume I, applies to a specific category of service contracts. This regulation, once it is published in final form, has the potential to become the much needed "cookbook" on contracting for services.

In addition to the research studies which took a broad look at how the DOD contracts for services, there have been several studies and audits which took a close look at contracting for specific services. For example: the General Accounting Office (GAO) in 1974 looked at contracted out

janitorial services, and mechanical work at the base motor pool performed at McGuire AFB (38); the U.S. Army Logistics Management Center, also in 1974, did an analysis on Army housekeeping service contracts (14); the GAO in 1977 looked at the potential for contracting out cadet dining hall services at the Air Force Academy (37); J.H. Miles at Pepperdine University, CA, analyzed Navy and Marine Corps Facility Maintenance Contracts (20); the Army Audit Agency in 1978 looked at Food Service contracts at Ft McClellan, AL (32); and T.C. Cadogan in 1978 analyzed base civil engineering functions as candidates for contracting out for HQ AFLC Maintenance Management Division, and recommended grounds maintenance for further investigation (2). A specific area on which, to date, no formal study has been reported is that of contract base level audiovisual services. As will be explained in the next section, contracts for audiovisual services are a very recent newcomer to the service contract area. This report is therefore an initial attempt to analyze the effectiveness of and identify problem areas in this new area of contracting out the audiovisual needs of an entire Air Force base.

BASE AUDIOVISUAL (AV) SERVICES — BACKGROUND

Audiovisual activities in the USAF are subjected to strict guidelines because the nature of many AV resources,

products and services makes them attractive and usable for unofficial purposes (33:Para.16). One of the methods used to obtain a tighter control over misuse of items such as photography and graphic arts was the development and inclusion into AFR 95-7 of the consolidated Base Audiovisual Service Center (BAVSC) concept. The hypothesis was: by putting all of the AV activities on a base under one roof and under one manager, better control could be exercised over both the expense and the legitimate official nature of all requested work. Since the middle 1970's, particularly on Military Airlift Command (MAC) bases, compliance with the AFR 95-7 requirement for a consolidated BAVSC has been evaluated during Management Effectiveness Inspections (MEIs). This has resulted in several AF bases building or modifying facilities in order to physically consolidate these functions (1).

The primary guidance for AV activities in the Air Force is contained in the 95-XX series regulations. AFR 95-1, USAF Audiovisual Resources and Functions, identifies and describes the USAF AV resources and functions used in the management and operation of USAF AV activities (36:1). AFR 95-7, Audiovisual Services, describes AV services and sets up the policy for AV functions that provide them. Specific AV programs are provided more detailed guidance and procedures in other 95-XX series regulations (33:1-2).

Air Force Regulation 95-1 defines Audiovisual Activities

as:

Organizational entities or functions at all levels responsible for the management of audiovisual (AV) resources or for providing AV products or services are defined as AV activities. This includes activities, functions, or organizations which:

- expose or process original photography
- record or broadcast electronically (television and audio)
- reproduce still and motion picture photography
- duplicate electronic recordings
- produce AV products
- provide graphic arts, nonengineering drafting, illustration, artwork, or visual information
- provide presentation services, conference room scheduling, and script writing
- contract for these activities, products or services [36:para.4].

U.S. Air Force AV functions are generally of two kinds: base audiovisual service centers (DOD type A activities) and special mission functions, which are also referred to as dedicated AV activities (36:para.5). A description and evaluation of the special mission functions is beyond the scope of this research. This paper will focus on the base AV services function; specifically, on recent attempts at contracting out Base Audiovisual Service Centers, which were stated earlier as recent developments in their own right.

A BAVSC usually has three AV functions: a base support photographic laboratory, an AV library, and a graphic arts activity. When there is a need, presentation services and training aids functions can also be added. The size of each

function and the range of services are based on local needs (33:para.15).

While DOD has been contracting out various individual audiovisual products and services, such as laboratory processing of photographic film and script writing for several years, contracting out the audiovisual activities of an entire base by putting the Base Audiovisual Service Center (BAVSC) under contract is a relatively new procedure, with Air Training Command first attempting it as a test case at Maxwell AFB AL in 1974. However, before that test was thoroughly evaluated, the FY-78 Defense Authorization Bill, with its reduction of 5,000 manpower spaces, was passed, and DOD made the decision to absorb the manpower cut totally out of CITA areas. Since DOD rationale was that "AV activities provide products or services for the Air Force that are obtainable from private commercial sources [33:3]," audiovisual activities were automatically considered as candidates for contracting out (26).

The initial consideration period in 1977, before the moratorium on contracting for services imposed by the FY-78 DOD Appropriations Act, will not be examined in this paper. However, it should be noted that the BAVSCs, which were under consideration for contracting out in 1977, were forced to freeze all military personnel assigned to BAVSCs and vacant civilian positions could not be filled. This freeze

continued throughout the moratorium period, and made operation of the BAVSCs under consideration difficult when vacancies from normal attrition or retirements could only be filled by civilian temporary hires or by temporary duty (TDY) augmentation of military personnel from other bases. It also made it difficult to accurately determine the AV workload at these bases for inclusion in a Statement of Work (1).

When the moratorium was lifted in 1978, and the review process was begun again, audiovisual services were cost compared at 19 bases, with 10 being identified to go civilian contract, and four to become in-house civilian operations (29:4). The Military Airlift Command (MAC) had six base audiovisual service centers among the 19 selected as not military essential, which underwent AFM 26-1 comparative cost analysis to determine if contract versus in-service civilian support would be the most economical method of program accomplishment. On 1 August 1979, four MAC base AV service centers (McChord, Travis, McGuire and Pope AFBs) were converted to civilian contract operations, and two MAC base AV service centers (Charleston and Dover AFBs) were converted to in-service civilian operated facilities (25).

HQ MAC/XPPV, the Audiovisual Plans and Programs Office, was concerned that the highly subjective nature of AV products and services, as well as the necessary restrictions to control unofficial uses, would make adequate Statements of Work difficult to develop as well as to enforce. The timing of the

conversions was also a matter for concern, as AFRs 95-1, 95-7, and 95-4 were under revision, and the AFLMC was drafting but had not completed its new AFR 400-28 on Base Level Services Contracting. As a result, there were no guidelines on how to write an SOW for a BAVSC other than the brief lessons learned by ATC at Maxwell AFB (26).

Many of the problems discussed earlier pertaining to contracting for services at base level, such as the development of an adequate SOW and a usable Quality Assurance Plan were also experienced when the contracts for the four MAC BAVSCs were written. When the first year of contract operation for the BAVSCs ended on 30 September 1980, HQ MAC/XPPV requested that a study be made to determine if the contracted AV service at the four bases was indeed as cost-effective as had been initially projected under OMB Circular A-76 criteria.

Scope and Objectives

This thesis serves as the study requested by HQ MAC/XPPV specifically to evaluate the first year cost effectiveness of the MAC base audiovisual service centers which converted to contract operations in FY-80. Since only four MAC bases were converted to contract operations in August 1979, the scope of this study will necessarily be limited to those four MAC bases: McGuire, Pope, Travis and

McChord. Budgetary and workload data will be evaluated in accordance with AFM 26-1 and OMB Circular A-76 criteria, as well as the new AFR 400-28 guidelines for writing Statements of Work. The research objective of this thesis will be to determine by a comparative cost and benefit analysis if contract audiovisual service has been as cost-effective as initially projected under the OMB Circular A-76 criteria.

Research Hypothesis

The initial year of contract base audiovisual services has been as cost-effective as initially projected under the OMB Circular A-76 criteria.

CHAPTER II

RESEARCH METHODOLOGY

Once a CITA has been reviewed and determined to be a candidate for contracting out, the normal process for deciding whether to contract for the service or to continue it as an in-house operation is to perform a cost comparison. "A decision for in-house performance based on economy must be supported by a comparative cost analysis prepared in accordance with this circular and the supplementary Cost Comparison Handbook [24:8]." A cost comparison (or comparative cost analysis) is:

An accurate determination of whether it is more economical to acquire the needed products or services from the private sector or from an existing or proposed Government commercial or industrial activity [23:Appendix 2].

The decision to convert to contract operations for the four MAC base audiovisual service centers (McGuire, Pope, Travis, and McChord AFBs) was based on cost comparisons that were drawn up under AFM 26-1, Manpower Policies and Procedures, which incorporates the policies of OMB A-76.

In Chapter I the following research hypothesis was developed: the initial year of contract base audiovisual services has been as cost effective as initially projected under OMB Circular A-76 criteria. To investigate this

hypothesis two different cost comparisons and a relative benefit analysis are performed. The first cost comparison is based on the method used in the original cost analysis performed in 1979. The Cost Analysis worksheet used in the original cost comparison (AF Form 346, Cost Analysis Worksheet) is shown in Exhibit 1. Since the contracting process took place just prior to the release of the revised OMB Circular A-76 in 1979, a second cost comparison is based on the procedures established in the Cost Comparison Handbook, Supplement No. 1 to OMB Circular A-76. The format of the second cost comparison is shown in Exhibit 2.

The benefit analysis is based on examining two areas. The first area is determining if the contractor has met the minimum acceptable quality level (AQL) standards specified in the SOW. The second area is based on evaluating customer satisfaction as expressed in interviews with major users of the audiovisual service centers. A benefit cost analysis is performed using the cost comparison and benefit analysis.

Cost Comparisons

The original cost comparison was completed in 1979 prior to the awarding of the audiovisual contract. A cost comparison's purpose is to compare the cost to the Government of the service performed by a contractor with the cost to the Government of the service performed in-house. The cost of performing the service in-house is based on the

COST ANALYSIS WORKSHEET		INSTALLATION	ACTIVITY
COST ELEMENTS		YEARS OF OPERATION	
		FIRST	SECOND
		THIRD	3 YEAR TOTAL
CONTRACT OPERATIONS			
1. TRANSPORTATION			
2. CONTRACT ADMINISTRATION AND RELATED COSTS			
3. GOVERNMENT FURNISHED MATERIALS AND SUPPLIES			
4. CONTRACTOR USE OF GOVERNMENT OWNED EQUIPMENT AND FACILITIES			
5. STANDBY MAINTENANCE COST			
6. OTHER COSTS			
7. SUBTOTAL (Sum of Lines 1 through 6)			
8. CONTRACT COST			
9. TOTAL CONTRACT OPERATIONS COST (Sum of Lines 7 and 8)			
GOVERNMENT OPERATIONS			
10. CIVILIAN PERSONNEL COSTS			
11. MATERIALS, SUPPLIES, UTILITIES AND OTHER SERVICES			
12. MAINTENANCE AND REPAIR			
13. OVERHEAD COSTS			
14. OTHER COSTS			
15. SUBTOTAL (Sum of Lines 10 through 14)			
16. INSURANCE (Line 15 Multiplied by 0.003)			
17. OTHER INDIRECT COSTS (Line 15 Multiplied by 0.02)			
18. DEPRECIATION			
19. INTEREST			
20. SUBTOTAL (Sum of Lines 15 through 19)			
21. FEDERAL TAXES (Line 8 multiplied by)			
22. TOTAL GOVERNMENT OPERATIONS COST (Sum of Lines 20 and 21)			
23. COST DIFFERENCES			
24. PERCENT DIFFERENCES			
REMARKS			
STUDY RESULT			
CONVERT TO		REMAIN	
CONTRACT	IN-HOUSE	CONTRACT	IN-HOUSE
DATE	PREPARED BY	SIGNATURES	
		APPROVED BY	

U.S. G.P.O. 1977-241-130/1188

AF FORM 346 JUL 77 PREVIOUS EDITION IS OBSOLETE.

Exhibit 1

(DEPARTMENT OR AGENCY)

COMPARATIVE COST OF IN-HOUSE AND CONTRACTING-OUT
PERFORMANCE OF (PRODUCT/SERVICE)

LINE #	COST ELEMENT	(Date)			TOTAL
		FIRST YEAR	SECOND YEAR	THIRD YEAR	
<u>IN-HOUSE PERFORMANCE (CHAPTER III)</u>					
1.	DIRECT MATERIAL				
2.	MATERIAL OVERHEAD				
3.	DIRECT LABOR				
4.	FRINGE BENEFITS ON DIRECT LABOR				
5.	OPERATIONS OVERHEAD				
6.	OTHER DIRECT COSTS				
7.	GENERAL AND ADMINISTRATIVE EXPENSE				
8.	INFLATION	N/A			
9.	TOTAL				
<u>PERFORMANCE BY CONTRACTING-OUT (CHAPTER IV)</u>					
10.	CONTRACT PRICE				
11.	TRANSPORTATION				
12.	CONTRACT ADMINISTRATION				
13.	GOVERNMENT-FURNISHED PROPERTY				
14.	STANDBY MAINTENANCE				
15.	OTHER COSTS				
16.	GENERAL AND ADMINISTRATIVE EXPENSE				
17.	TOTAL				

Exhibit 2

LINE #	COST ELEMENT	FIRST YEAR	SECOND YEAR	THIRD YEAR	TOTAL
<u>OTHER CONSIDERATIONS (CHAPTER V)</u>					
<u>ADDITIONS AND (DEDUCTIONS) TO IN-HOUSE PERFORMANCE</u>					
ADD:					
18.	COST OF CAPITAL				
19.	ONE-TIME NEW-START COSTS				
20.	OTHER COSTS				
DEDUCT:					
21.	OTHER COSTS	()	()	()	()
22.	TOTAL				
<u>ADDITIONS AND (DEDUCTIONS) TO CONTRACTING-OUT PERFORMANCE</u>					
ADD:					
23.	COST OF CAPITAL ON GOVT-FURNISHED FACILITIES				
24.	UTILIZATION OF GOVERNMENT CAPACITY				
25.	ONE-TIME CONVERSION COSTS				
26.	OTHER COSTS				
DEDUCT:					
27.	FEDERAL INCOME TAXES	()	()	()	()
28.	NET PROCEEDS FROM DISPOSAL OF ASSETS (ANNUAL VALUE)	()	()	()	()
29.	OTHER COSTS	()	()	()	()
30.	TOTAL				
<u>MINIMUM COST DIFFERENTIAL (CHAPTER VI)</u>					
31.	NEW-START				
32.	CONVERSION				
<u>SUMMARY</u>					
33.	ADJUSTED COST OF IN-HOUSE PERFORMANCE (LINE 9 + LINE 22 + 31)				
34.	ADJUSTED COST OF CONTRACTING-OUT PERFORMANCE (LINE 17 + LINE 30 + 32)				
35.	COST OF IN-HOUSE OVER (UNDER) COST OF CONTRACTING-OUT PERFORMANCE (LINE 33 - LINE 34)				

estimated requirements established in the SOW. The personnel requirements are based on the grade and number of civil service workers needed to perform the requirements in the SOW. The cost to the Government of contracting out is based on the contractor's bid, plus the cost of any other operations required to support or administer the contract. The cost comparison is usually computed to include a three-year period to offset the impact of any cost incurred in the first year as a result of the conversion to contract operations. The decision to either remain as an in-house or convert to contract operation is based on which method of operation is cheaper.

The decision to convert to contract operations for the four base audiovisual service centers was based on cost comparisons accomplished by MAC Headquarters (XPMRS). These cost comparisons covered a period from August 1979 through September 1982. This time period was divided into an initial fourteen month period (August 1979 to September 1980) and two one year periods (FY-81 and FY-82). In the cost comparison there were certain operations in which the cost was the same regardless of who, the Government or a contractor, conducted the service. These items are referred to as wash items, and are identified on the cost comparison form as "wash" or "NR." In preparing the original cost comparison, the only inflation factor used is a 5.5%

projected pay raise for Government personnel cost. If a contractor submitted a bid for a one year period, that bid was used again as the second and third year bids.

Our first cost comparison (referred to as Cost Comparison 1) is accomplished by taking the original cost comparison methodology and using actual cost for the first fourteen month period and the actual or forecast cost for the second and third years. So that an accurate cost comparison can be made between Cost Comparison 1 and the original cost comparison, the manpower utilized in the original cost comparison is used. If a modification was made to the contract that significantly affected the manpower needs, it is identified in the cost comparison. All items that were considered wash items in the original cost comparison are considered as wash items in Cost Comparison 1.

There are two areas where actual costs are not available: the cost of materials and supplies, and maintenance and repair in the Government operations. Since the BAVSC did go contract, the values used in the original cost comparison are used. If, due to inflation, these values increased by 10%, the error in the cost comparison is less than 1.5%.

On 29 March 1979, a revised OMB Circular A-76 was published. OMB Circular A-76 was revised because

As Government cost accounting techniques progressed, it became obvious that Circular A-76 guidelines were too general to achieve desirable uniformity, and were insufficient as a basis for comprehensive cost studies...The proposed solution, a detailed cost comparison handbook, was widely and strongly supported by the numerous respondents to the OMB November 1977 request for comments on proposed changes to Circular A-76 [23:1-2].

The effective date for the revised OMB Circular A-76 was 1 May 1979. However, any studies in process where a solicitation for contract bids or proposals was issued prior to the effective date did not need to follow the revised OMB Circular A-76. Since all four of these bases had already sent out a solicitation for contract bids for base audiovisual services, they followed the old OMB Circular A-76 guidelines.

There are three major changes in this OMB Circular A-76 that affect cost comparisons. First, cost comparisons are to be aimed at full cost, to the maximum extent practical in all cases. All significant Government costs, including allocation of overhead and indirect costs, must be included for both direct Government performance and for administration of a contract (23:2). Second, the fringe benefit factors' cost to the Government of 8.44% is changed. In the revised A-76, the standard fringe benefit cost factors are divided into three areas:

1. Retirement and Disability, 20.4%.
2. Health and Life Insurance, 3.7%.
3. Other Benefits, 1.9%.

This becomes a total of 26% applied to annual or periodic labor cost (23:2). The third major change is an addition that "An existing in-house activity will not be converted to contract performance on the basis of economy unless it will result in savings of at least 10% of the estimated Government personnel cost for the period of the comparative analysis [24:9]." Because of these major changes to OMB Circular A-76 and because the conversions took place based on the original cost comparison procedures, a second cost comparison, referred to as Cost Comparison 2, is accomplished using the procedures outlined in the Cost Comparison Handbook: Supplement No. 1 to OMB Circular No. A-76.

In order to make a comparison between Cost Comparison 1 and Cost Comparison 2, not all procedures in the Cost Comparison Handbook can be followed. Since certain items in Cost Comparison 1 were treated as "wash" items, these same items are treated as "wash" items in Cost Comparison 2.

Based on these cost comparisons, a decision is made on whether the contract services have shown a cost-saving as initially projected. The decision is based on the requirements, as stated earlier, established in OMB Circular A-76 revised: "An existing in-house activity will not be converted to contract performance on the basis of economy unless it will result in savings of at least 10% of the estimated Government personnel costs for the period

of the comparative analysis [24:9]." Since Cost Comparison 1 does not include this 10% factor, it is applied to the total personnel cost and added to the total contract operations cost. Now the results of Cost Comparison 1 and Cost Comparison 2 are compared. The decision points are:

1. If both Cost Comparison 1 and 2 show that contract service is cheaper, then the conversion to contract service is a cost saving.
2. If Cost Comparison 2 shows that the contractor is cheaper and Cost Comparison 1 does not, then the conversion to contract service is a cost savings under the OMB Circular A-76 revised criteria.
3. If Cost Comparison 1 shows a savings by contracting, but Cost Comparison 2 does not, then the conversion to contract service does not show a cost savings under OMB A-76 revised criteria.
4. If neither Cost Comparison 1 or 2 show a saving by contracting out, then the conversion did not show a cost savings.

Benefit Analysis

In evaluating the cost effectiveness of converting these BAVSCs to contract, one other important aspect that must be considered along with the cost of contract service operations is the quality of the service and products received under contract. Every Statement of Work for a service contract is required to have a Quality Assurance plan. This Quality Assurance plan (surveillance plan) is "the plan developed by the Government, specifically for

this contract, to insure compliance with the contract [30:p.4-6]." The recommended quality assurance plan for audiovisual services is specified in AFR 400-28, Vol. 3, and is divided into the areas of production deadlines met and the quality of completed work.

The criteria for satisfactory and unsatisfactory performance are derived in two methods, one quantitative and the other subjective. First, "the Government's quality assurance procedures are based in part on random sampling of the recurring critical output products of the contract using MIL-STD-105D [30:p.4-62]." The method used is based on a random sample drawn from a specified population of completed work. The quality level of the sample is evaluated and the results compared to the acceptable quality level (AQL) specified in the SOW, which is the maximum percent of defective work, the maximum number of defects per hundred units, or the number of defects that will be allowed before work is considered unsatisfactory (30:pp.4-7 to 4-8). Audiovisual products are deemed acceptable if they 1) meet or exceed the quality standards of the specimens contained in the SOW, or 2) meet customer requirements. Estimates of the level of performance experienced when the service was done by Government personnel or the level of performance deemed satisfactory to the Government is the basis for comparing the contractor's performance.

The benefit analysis is accomplished by comparing the contractor's work against both the acceptable levels specified in the SOW, and against the level of quality expected and considered acceptable by the customers of the AV service center. These are evaluated separately. Comparing the contractor's work against the acceptable levels specified in the SOW is accomplished by contacting the Quality Assurance Evaluator (QAE), who is the individual responsible for the Government's surveillance of the contract, to provide data on the degree to which the contractor has maintained the acceptable quality levels specified in the SOW. Comparisons of the contractor's work against the level of quality expected and considered acceptable by the customers of the AV service center is accomplished by surveying the population of personnel on each base who are frequent users of the BAVSC. Frequent users are defined as those who use AV services at least once per month. Due to the highly subjective and individual interpretations of quality in audiovisual products, it is determined that interviews with identified AV users would be the most appropriate method for this aspect of the study. Potential survey participants are identified by contacting the QAE for each contract to provide a list of names, office symbols and duty phone numbers of frequent AV users at their base. Since the base populations and AV use levels are anticipated to vary

from base to base, the only instructions to the QAE for selecting survey candidates are to provide a cross-section of the organizations on the base, and that the sample contains some users for each of the three AV services (Film Library, Graphic Arts, and Photo Service).

After due consideration of the advantages and disadvantages of personal interviews versus telephone interviews, telephone interviews are chosen primarily because of the low cost and the removal of travel time constraints. As Emory says, "Telephones are especially economical when there are many callbacks to make and respondents are widely scattered [6:305]". Emory also identifies limits to the research use of telephone interviews, in that the respondent must be reachable by phone, the interview can be easily terminated, and the questions cannot be complex (6:306-307). All three problems are lessened by mailing an introductory information package (Appendix A) to the candidates in advance. This package describes the purpose of the study, contains the list of AV quality points for evaluation, and informs candidates that an interview would be arranged shortly at their convenience. The interview follows the outline of the information package, with some questions designed as open-ended and others as scaled response format. When the subjects are contacted by telephone for the interviews, they are requested to have the information package in front of them. The actual interview follows a standardized

format and sequence (Appendix K) which "helps assure that each question is asked the same way in each interview, promoting measurement reliability. A standardized questioning sequence also makes it easier to develop a standard line of questioning that builds on prior responses [6:215]".

The scaled response format chosen for some of the questions is a five point Likert scale. "With this scale the respondent is asked to respond to each statement in terms of five degrees of agreement [6:272]." An example from the interview is:

Would you agree or disagree that the Graphic Arts personnel are courteous and helpful?

/	1	/	2	/	3	/	4	/	5	/
	Strongly		Somewhat		Neither		Somewhat		Strongly	
	Disagree		Disagree		Agree nor		Agree		Agree	
					Disagree					

Each of the 13 specific statements are chosen to reflect a relevant quality of AV service in the Film Library, Graphic Arts, or Photo Service areas. They are chosen after consultation with several personnel in the Aerospace Audiovisual Service (AAVS), and examination of several informal customer comment forms used by AAVS units for feedback on their products. In anticipation that not all respondents would be able to respond to all statements in this section, average scores are calculated for each statement rather than total scores. Any individual statement's

average score which differs significantly from the general response pattern at that base is interpreted as an indication of higher or lower customer satisfaction with that quality point.

The open-ended questions are formulated for two purposes: (1) to provide data for classifying the background AV experience of the respondents, such as rank, organizational level, amount of experience with AV at that base, and previous AV experience, and (2) to provide data on preferences, attitudes, and expectations regarding AV services. The open-ended questions are selected by the same process as and concurrently with the scaled response questions.

Assumptions in this survey are:

- (1) Survey respondents considered their responses in advance, and answered honestly.
- (2) Non-contacts with some of the sample population do not affect the conclusions of this research effort.
- (3) The responses received are representative of the larger base population.
- (4) The interview is a reasonably reliable and valid tool for measurement.

The decision points for the quality levels are:

- (1) If the quality of the contractor's work exceeds the performance considered acceptable by the customers and the standards established in the SOW, there is an increase in service quality.
- (2) If the quality of the contractor's work is below or equal to the performance considered acceptable by the customers, but equal to or

above the standards established in the SOW, then the service quality is acceptable.

- (3) If the quality of the contractor's work is equal to or below the performance considered acceptable by the customers, but below the standards established in the SOW, then there is a loss of service quality.

Overall Cost Effectiveness Evaluation

Since there were only four MAC audiovisual service centers converted to contract operations in August 1979, a cost effectiveness study is accomplished on each. The bases, again, are McGuire AFB NJ, Pope AFB NC, Travis AFB CA, and McChord AFB WA. The overall evaluation decision points for whether a conversion is cost effective as initially projected under the OMB Circular A-76 criteria are:

- (1) If both Cost Comparison 1 and 2 show a cost savings and there is not a loss of quality, the conversion is cost effective.
- (2) If only Cost Comparison 2 shows a cost savings and there is not a loss in quality, the conversion is cost effective based on the OMB A-76 revised in 1979.
- (3) If only Cost Comparison 1 shows a cost savings and there is not a loss of quality, the conversion is cost effective based on the old OMB A-76, but not the revised one.
- (4) If Cost Comparison 1 and 2, or 2 alone, show a cost savings, but with a loss in quality, the conversion is not cost effective.
- (5) If both cost comparisons show no cost savings, with or without a loss of quality, the conversion is not cost effective.

CHAPTER III

FINDINGS AND ANALYSIS

Cost Comparisons

The two cost comparisons are accomplished as discussed in the methodology chapter. Both Cost Comparisons 1 and 2 for the four bases, as well as an outline of the original cost comparisons, are found in Appendices B through J. In our cost comparisons, there are three areas that impacted the cost comparisons substantially. The first area is the civilian personnel cost. The original cost comparison used a projected 5.5% pay raise for all three years. However, the actual pay increases, as used in this analysis, are 7.3% for FY-80 and 9.1% for FY-81. A projected pay raise of 5.5% is used for the third year in Cost Comparison 1. In Cost Comparison 2, the projected pay raise for the third year is only 4% in accordance with the Cost Comparison Handbook (22:50). The other factor that increased the personnel costs is the Government contribution factor. The factor was changed from 8.44% to 26%. Table 1 gives the total civilian cost for each base. For the original cost comparison and Cost Comparison 1, the personnel costs are obtained from Line 10 in the respective appendices. These costs include

TABLE 1

Government Civilian Personnel Costs

	1st Year	2nd Year	3rd Year	Total
Travis AFB				
*OCC	\$195,654	\$178,252	\$188,056	\$561,962
**CC1	198,543	187,480	197,792	583,806
***CC2	230,200	217,383	226,078	673,661
McChord AFB				
OCC	\$192,841	\$175,646	\$185,309	\$553,796
CC1	195,637	184,627	194,889	575,153
CC2	226,908	214,143	222,709	663,760
McGuire AFB				
OCC	\$242,745	\$221,092	\$233,234	\$697,071
CC1	246,112	232,084	245,292	723,488
CC2	285,150	268,893	279,649	833,692
Pope AFB				
OCC	\$240,272	\$218,997	\$231,040	\$690,309
CC1	243,724	229,128	241,730	714,582
CC2	281,647	264,773	275,364	821,784

* OCC = Original Cost Comparison

** CC1 = Cost Comparison 1

*** CC2 = Cost Comparison 2

the total salary of the employees, the Government contribution, and other labor costs such as overtime. In Cost Comparison 2, these costs are found in three lines: direct labor (Line 3), fringe benefits on direct labor (Line 4), and other direct costs (Line 6). To make an accurate comparison, the sum of these lines is used. The third year cost of Cost Comparison 2 is obtained by multiplying 1.04, an inflation factor, to the second year cost. As is expected, the civilian personnel cost is higher in Cost Comparison 2. The reason is the increase of the Government contribution factor to 26%.

The second area which impacts the cost comparisons affects the cost of the contractor's operations. This is the contract price charged by the contractor. Table 2 gives the original contract price and the actual contract price for the first year, and estimates for the second and third years. In the original cost comparison, prospective contractors at two bases, Travis AFB and Pope AFB, bid less on the second and third years than on the adjusted first year. The first year is adjusted because it is a 14-month period.

Travis AFB:	\$229,462/14 months	=	\$ 16,390.14
	\$ 16,390.14x12 months	=	\$196,681.71
Pope AFB:	\$241,872/14 months	=	\$ 17,276.57
	\$ 17,276.57x12 months	=	\$207,318.86

TABLE 2
Contractor Price

	1st Year	2nd Year	3rd Year	Total
Travis AFB				
*OCC	\$229,462	\$175,080	\$175,080	\$579,622
**A/R Est	229,058	200,283	200,283	629,624
McChord AFB				
OCC	\$190,461	\$163,252	\$163,252	\$516,965
A/R Est	190,460	170,844	182,245	543,549
McGuire AFB				
OCC	\$250,891	\$216,050	\$219,864	\$686,805
A/R Est	253,425	229,427	233,241	716,093
Pope AFB				
OCC	\$241,872	\$183,807	\$183,807	\$609,486
A/R Est	230,837	196,392	196,392	623,621

* OCC = Original Cost Comparison

** A/R Est = Actual/Revised Estimates

At the remaining two bases, the prospective contractors' bids on the second and third years were approximately the same or slightly higher than the adjusted first year bid.

McChord AFB: \$190,461/14 months = \$ 13,604.36
\$ 13,604.36 x 12 months = \$163,252.29

McGuire AFB: \$250,891/14 months = \$ 17,920.79
\$ 17,920.79 x 12 months = \$215,049.43

Contractors at three of the four bases, Travis, McChord and Pope AFBs, repeated the second year price for the third year price. At the other base, McGuire AFB, the contractor's price was 1.8% higher in the third year than the second year. This data suggests that the first three contractors did not apply any inflation factor to their price.

The actual data indicates that the first year contract price is very close to the bid price. The only exception is at Pope AFB. At Pope AFB the contractor received 4.6% less than the contract bid price. At Pope AFB, in the first year of the contract, the actual cost of the service is based on actual pieces of work done; for example, number of photographs taken or number of slides produced. According to the contract office at Pope AFB, the actual workload of the BAVSC was less than the amount estimated in the SOW. However, the amount of work was not below 85% of the estimate in the SOW. The actual workload fell within the specified contract range

of 85% to 115% of the estimated workload in the SOW. Therefore, no renegotiation was required. The second year renegotiated estimate for the contract price at each base is higher than the original bid. The percentage differences are:

Travis AFB:	14.4%
McChord AFB:	4.7%
McGuire AFB:	6.2%
Pope AFB:	6.8%

Only one contract administration office had an estimate for the third year contract price. This base is McChord AFB. In the original cost comparison at McGuire AFB, the contractor had a bid that was \$3,814 higher than the second year. Therefore, the third year estimate of the contract price at McGuire AFB is the latest second year estimate plus \$3,814. At both Travis and Pope AFBs, the third year estimate of the original contract bid price was the same as the second year. Consequently, in Cost Comparisons 1 and 2 the third year estimates for the contract price of these bases is the same as the second year contract price.

The third area that adds to the cost of the total contract operation cost is the requirement that, prior to converting to a contract operation, a savings of at least 10% of the estimated Government personnel costs must be shown. In Cost Comparison 2, this cost is found on Line 32, Conversion. There was not a requirement to calculate or use this cost

for the original cost comparison. Since Cost Comparison 1 follows the methodology of the original cost comparison, it does not include this requirement. However, so that a comparison of cost differences can be made, the cost of 10% of the personnel cost is calculated for the original cost comparison and Cost Comparison 1. In Cost Comparison 2, the 10% personnel cost is calculated on the direct labor costs and fringe benefit costs only. Consequently, only the costs of direct labor and fringe benefits in Line 10 are used for calculating the 10% cost margin. This is calculated by subtracting the other costs found in Line 10 from the total personnel costs. The calculations are shown in Table 3. Now 10% of this figure is used as the 10% personnel cost margin, shown in Table 4. The calculations show that in all cases Cost Comparison 2 has the highest personnel margin. This is expected since Cost Comparison 2 had the highest personnel costs as a result of the 26% Government contribution factor.

Up to this point one area, personnel costs, increased the cost of the Government operations, and two areas increased the total cost of the contractors' operations. The key question is, then, is there a cost savings with a contractor operation. Table 5, Cost Differences, is a listing of the cost of the Government operation and the cost of a contractor operation for each base. Each cost difference is calculated

TABLE 3

Adjustment of Personnel Costs

	1st Year	2nd Year	3rd Year	Total
Travis AFB				
*OCC				
Line 10	\$195,654	\$178,252	\$188,056	\$561,962
- Other Costs	<u>2,934</u>	<u>2,670</u>	<u>2,817</u>	<u>8,421</u>
	\$192,720	\$175,582	\$185,239	\$553,541
**CC1				
Line 10	\$198,534	\$187,480	\$197,792	\$583,806
- Other Costs	<u>2,974</u>	<u>2,808</u>	<u>2,964</u>	<u>8,746</u>
	\$195,560	\$184,672	\$194,828	\$575,060
McChord AFB				
OCC				
Line 10	\$192,841	\$175,646	\$185,309	\$553,796
- Other Costs	<u>2,566</u>	<u>2,301</u>	<u>2,428</u>	<u>7,295</u>
	\$190,275	\$173,345	\$182,881	\$546,501
CC1				
Line 10	\$195,637	\$184,627	\$194,889	\$575,153
- Other Costs	<u>2,591</u>	<u>2,410</u>	<u>2,543</u>	<u>7,544</u>
	\$193,046	\$182,217	\$192,346	\$567,609
McGuire AFB				
OCC				
Line 10	\$242,745	\$221,092	\$233,234	\$697,071
- Other Costs	<u>4,644</u>	<u>4,231</u>	<u>4,464</u>	<u>13,339</u>
	\$238,101	\$216,861	\$228,770	\$683,732
CC1				
Line 10	\$246,112	\$232,084	\$245,292	\$723,488
- Other Costs	<u>5,034</u>	<u>4,772</u>	<u>5,034</u>	<u>14,840</u>
	\$241,078	\$227,312	\$240,258	\$708,648
Pope AFB				
OCC				
Line 10	\$240,272	\$218,997	\$231,040	\$690,309
- Other Costs	<u>9,300</u>	<u>8,487</u>	<u>8,952</u>	<u>26,739</u>
	\$230,972	\$210,510	\$222,088	\$663,570
CC1				
Line 10	\$243,724	\$229,128	\$241,730	\$714,582
- Other Costs	<u>9,534</u>	<u>9,003</u>	<u>9,498</u>	<u>28,035</u>
	\$234,190	\$220,125	\$232,232	\$686,547

* OCC = Original Cost Comparison

** CC1 = Cost Comparison 1

TABLE 4

10% Personnel Cost Margins

	1st Year	2nd Year	3rd Year	Total
Travis AFB				
*OCC	\$19,270	\$17,558	\$18,524	\$55,354
**CC1	19,556	18,467	19,483	57,506
***CC2	22,723	21,458	22,316	66,497
McChord AFB				
OCC	\$19,275	\$17,335	\$18,288	\$54,650
CC1	19,305	18,221	19,235	56,761
CC2	22,431	21,172	22,062	65,665
McGuire AFB				
OCC	\$23,810	\$21,686	\$22,877	\$68,373
CC1	24,108	22,731	24,026	70,865
CC2	28,012	26,412	27,469	81,893
Pope AFB				
OCC	\$23,097	\$21,051	\$22,209	\$66,357
CC1	23,419	22,013	23,223	68,655
CC2	27,211	25,577	26,600	79,388

* OCC = Original Cost Comparison
 ** CC1 = Cost Comparison 1
 *** CC2 = Cost Comparison 2

TABLE 5

Cost Differences

	1st Year	2nd Year	3rd Year	Total
Travis AFB				
*OCC				
Government				
Oper Cost	\$245,883	\$221,154	\$231,184	\$698,223
Contract				
Oper Cost	<u>252,663</u>	<u>196,218</u>	<u>197,380</u>	<u>646,261</u>
Cost Diff	\$ (6,778)	\$ 24,936	\$ 33,804	\$ 51,962
**CC1				
Government				
Oper Cost	\$248,823	\$231,056	\$241,605	\$721,484
Contract				
Oper Cost	<u>252,601</u>	<u>222,515</u>	<u>223,738</u>	<u>698,854</u>
Cost Diff	\$ (3,778)	\$ 8,541	\$ 17,867	\$ 22,630
***CC2				
Government				
Oper Cost	\$275,869	\$258,476	\$268,828	\$803,173
Contract				
Oper Cost	<u>286,007</u>	<u>253,608</u>	<u>255,472</u>	<u>795,060</u>
Cost Diff	\$ (10,138)	\$ 4,868	\$ 13,356	\$ 8,104
McChord AFB				
OCC				
Government				
Oper Cost	\$223,952	\$202,552	\$212,437	\$638,941
Contract				
Oper Cost	<u>218,212</u>	<u>184,390</u>	<u>185,552</u>	<u>588,154</u>
Cost Diff	\$ 5,740	\$ 18,162	\$ 26,885	\$ 50,787
CC1				
Government				
Oper Cost	\$226,812	\$211,877	\$222,584	\$661,273
Contract				
Oper Cost	<u>218,553</u>	<u>193,076</u>	<u>205,700</u>	<u>617,329</u>
Cost Diff	\$ 8,259	\$ 18,801	\$ 16,884	\$ 43,944
CC2				
Government				
Oper Cost	\$254,508	\$238,953	\$248,957	\$742,418
Contract				
Oper Cost	<u>247,476</u>	<u>224,490</u>	<u>237,123</u>	<u>709,089</u>
Cost Diff	\$ 7,032	\$ 14,463	\$ 11,834	\$ 33,329

TABLE 5 (Cont'd)

	1st Year	2nd Year	3rd Year	Total
McGuire AFB				
*OCC				
Government				
Oper Cost	\$284,368	\$257,087	\$269,579	\$811,034
Contract				
Oper Cost	<u>269,856</u>	<u>233,329</u>	<u>238,093</u>	<u>741,278</u>
Cost Diff	\$ 14,512	\$ 23,758	\$ 31,486	\$ 69,756
**CC1				
Government				
Oper Cost	\$287,860	\$268,577	\$282,158	\$838,595
Contract				
Oper Cost	<u>272,670</u>	<u>247,600</u>	<u>252,414</u>	<u>772,684</u>
Cost Diff	\$ 15,190	\$ 20,977	\$ 29,744	\$ 65,911
***CC2				
Government				
Oper Cost	\$322,106	\$302,099	\$314,188	\$938,393
Contract				
Oper Cost	<u>311,401</u>	<u>283,838</u>	<u>289,667</u>	<u>884,906</u>
Cost Diff	\$ 10,705	\$ 18,261	\$ 24,521	\$ 53,487
Pope AFB				
OCC				
Government				
Oper Cost	\$285,312	\$257,455	\$269,774	\$812,541
Contract				
Oper Cost	<u>274,687</u>	<u>204,945</u>	<u>206,107</u>	<u>685,739</u>
Cost Diff	\$ 10,625	\$ 52,510	\$ 63,667	\$126,802
CC1				
Government				
Oper Cost	\$288,641	\$268,049	\$280,940	\$837,630
Contract				
Oper Cost	<u>264,031</u>	<u>218,624</u>	<u>219,847</u>	<u>702,502</u>
Cost Diff	\$ 24,610	\$ 49,425	\$ 61,093	\$135,128
CC2				
Government				
Oper Cost	\$322,258	\$301,203	\$313,263	\$936,724
Contract				
Oper Cost	<u>295,545</u>	<u>256,909</u>	<u>257,932</u>	<u>810,386</u>
Cost Diff	\$ 26,713	\$ 44,294	\$ 55,331	\$126,338

* OCC = Original Cost Comparison

** CC1 = Cost Comparison 1

*** CC2 = Cost Comparison 2

by subtracting the cost of the contractor operation from the cost of the Government operation. In all cases, there is a cost savings from a contractor operation under the specific cost comparison methodologies. However, the original cost comparison and Cost Comparison 1 were not required to include the 10% personnel cost margin. In order to compare the original cost comparison and Cost Comparison 1 with Cost Comparison 2 using the criteria established in the decision points outlined in Chapter II, the 10% personnel cost margin, Table 4, is subtracted from the cost differences, Table 5. The results are shown in Table 6. At Travis AFB and McChord AFB the results indicate that, if only 10% personnel cost margin had been required, they would not have shown a cost savings with a contractor operation. However, using the Cost Comparison Handbook procedures in OMB Circular A-76, there is still a cost saving indicated by Cost Comparison 2. McGuire AFB indicates a cost saving in the original cost comparison and Cost Comparison 2. Cost Comparison 1 does not. Pope AFB in all comparisons shows a cost savings.

Recalling from Chapter II, the decision points are:

1. If both Cost Comparison 1 and 2 show that contract service is cheaper, then the conversion to contract service is a cost saving.
2. If Cost Comparison 2 shows that the contractor is cheaper and Cost Comparison 1 does not, then the conversion to contract service is a cost savings

under the OMB Circular A-76 revised criteria.

3. If Cost Comparison 1 shows a savings by contracting, but Cost Comparison 2 does not, then the conversion to contract service does not show a cost savings under OMB A-76 revised criteria.
4. If neither Cost Comparison 1 nor 2 shows a saving by contracting out, then the conversion did not show a cost savings.

Therefore, Pope AFB comes under decision rule one. Travis AFB, McChord AFB, and McGurie AFB fall under decision rule two.

TABLE 6

Cost Differences Minus 10% Personnel Cost Margin

	1st Year	2nd Year	3rd Year	Total
Travis AFB				
*OCC	\$(26,048)	\$ 7,378	\$ 15,280	\$(3,390)
**CC1	(23,334)	(9,926)	(1,616)	(34,876)
***CC2	(10,138)	4,868	13,868	8,104
McChord AFB				
OCC	\$(13,535)	\$ 827	\$ 8,597	\$(4,111)
CC1	(11,046)	580	(2,351)	(12,817)
CC2	22,431	21,172	22,062	65,665
McGuire AFB				
OCC	\$(9,298)	\$ 2,072	\$ 8,609	\$ 1,383
CC1	(8,918)	(1,754)	5,718	(4,954)
CC2	10,705	18,261	24,521	53,487
Pope AFB				
OCC	\$(12,472)	\$ 31,459	\$ 41,458	\$ 60,445
CC1	1,190	27,412	37,870	66,473
CC2	27,211	25,577	26,600	79,388

* OCC = Original Cost Comparison

** CC1 = Cost Comparison 1

*** CC2 = Cost Comparison 2

Benefit Analysis

Interview Contact Rate

As mentioned in Chapter II, the names of base personnel who were frequent customers of the Base Audiovisual Service Center (BAVSC) were requested from the Quality Assurance Evaluator (QAE) for each contract. Each QAE provided between 10 and 12 names, office symbols and phone numbers. A separate information package, as shown in Appendix A, was mailed to each individual. Telephone interviews were arranged and conducted at the individual's convenience.

All of the interviews followed basically the outline of the information package topics, with some questions open ended and others requiring the respondent to agree or disagree with various statements. Respondents were asked to elaborate whenever a response was very positive or very negative. Additional background information was asked at the beginning of the interview as to how long they had been at that base and how long they had been working with AV services. Some of the identified people could not be contacted due to their being on extended TDYs. However, this does not affect the results of the study because the minimum response rate was still high at 70%. In other cases, the individual who was mailed the information package copied it and gave it to another AV user, such as in one unit where the package was mailed to the training NCO who gave a copy to a person in the Operations Branch. Since the sample was a convenience sample to start with, additional contacts with major users of AV services did not adversely affect the results.

Table 7 indicates the response, or contact rates, for the four bases.

TABLE 7			
<u>Response Rate</u>			
Base	# Sent	# Contacted	%
Travis	10	7	.70
Pope	11	10	.91
McGuire	10	11	1.10
McChord	12	13	1.08
TOTAL	43	41	.953

Background Information

The background information questions pertained to years or months of experience with using the BAVSC at their present base, and any experience they had had with other types of BAVSCs, such as a different contract, a military operation, or a mixed military/civil service operation. Table 8 shows the status of the respondents, which was approximately 39% officer, 41% enlisted, and 19.5% civil service.

Table 9 shows the organizational level of the respondents, which was primarily Wing (37%) or Group (34%).

TABLE 8				
<u>Status of Respondents</u>				
Base	Officer	Enlisted	Civilian	Total
Travis	5	1	1	7
Pope	2	6	2	10
McGuire	4	5	2	11
McChord	5	5	3	13
TOTAL	16	17	8	41

TABLE 9					
<u>Organizational Level</u>					
Level	Travis	Pope	McGuire	McChord	Total
Squadron or Below	2	1	0	1	4
Group	2	5	4	3	14
Wing	1	3	5	6	15
Air Division	0	0	0	3	3
Numbered Air Force	1	0	1	0	2
Separate Operating Agency	1	1	0	0	2
Other	0	0	1	0	1
	7	10	11	13	41

The amount of experience with using AV services at their particular base ranged from 6 months to 21 years. Because the consolidated Base Audiovisual Service Center concept has only been in effect since approximately 1976, anything over four years was counted as four years. With that constraint, the average experience of the respondents for using AV services on their base was 28 months.

TABLE 10
Months/Years Experience with BAVSC

Base	Low	High	Total*	Average
Travis	8 mos	8 yrs	184 mos	26.3 mos
Pope	6 mos	5 yrs	242 mos	24.2 mos
McGuire	16 mos	21 yrs	420 mos	38.2 mos
McChord	10 mos	13 yrs	305 mos	23.5 mos
TOTAL			1151 mos	28.1 mos

* All amounts greater than 4 years were counted as equal to 4 years.

Approximately 80% of the respondents had experience with other BAVSCs prior to the present contract operation.

TABLE 11

Previous BAVSC Use

Base	# Contacts	# With Prior Experience	%
Travis	7	4	.57
Pope	10	7	.70
McGuire	11	10	.91
McChord	13	12	.92
TOTAL	41	33	.80

Frequency of Use of AV

The respondents were asked to estimate the frequency with which they used their BAVSC, and to identify which of the three functions they used. They were also asked to estimate the frequency or percentage of their AV requests which required the contractor to work overtime or during non-normal duty hours.

TABLE 12

Frequency of EAVSC Use

Base	Low	High	Average
Travis	.5/mo	30/mo	10.6/mo
Pope	3/mo	20/mo	9.7/mo
McGuire	2/mo	40/mo	8.9/mo
McChord	4/mo	30/mo	12/mo

Not all of the respondents used or were authorized to use all three AV services (Film Library, Graphic Arts, Photographic Services). At each of the four bases, there were several who used only one or two of the services. Overall, 83% of the respondents used Film Library and Photographic Services, and 73% used Graphic Arts service. Table 13 shows the use rates of the respondents.

TABLE 13
AV Services Used

Base	Total Contacts	# Using Graphics	# Using Photo	# Using Film Library
Travis	7	6	5	5
Pope	10	5	10	9
McGuire	11	9	8	9
McChord	13	10	11	11
TOTAL	41	30	34	34

The question on the percentage of their requests requiring the contractor to work outside normal duty hours drew mixed responses. 56% had no instances of needing overtime, night or week-end work by contractor personnel. Of the 44% who did, however, most cited extreme difficulty and extra work on their part to arrange such work when

needed, and some either did the work themselves (usually photography) or hired someone for the job rather than go through what virtually all in this category called "hassling with the paperwork." Table 14 shows the frequency that the respondents needed AV work performed during non-duty hours, and includes instances where the respondents did the work themselves or hired someone to do it.

TABLE 14
Frequency of Non-Duty Hours AV Requirements

Base	Total	# With O/T Needs	Low	High	Average*
Travis	7	2	1/mo	4/mo	2.5/mo
Pope	10	5	1/mo	7/mo	2.6/mo
McGuire	11	4	1/qtr	8/mo	2.7/mo
McChord	13	7	1/yr	5/mo	1.9/mo
	41	18			

*This column is an average need rate of those with non-duty hour requirements.

Necessity of AV to Job or Mission

The respondents were asked to make a value judgment on just how necessary it was to their job or mission to have AV services available. They were also asked to give

a definition of what they considered "good quality AV services and products" for their particular needs. Thirty-eight of the 41 respondents, or 93%, claimed AV services were essential to their job. Responses to this question were along the lines of: "extremely important;" "mission required;" "absolutely necessary;" "extremely essential;" "we'd be out of a job;" "highly essential;" and "durn near impossible to do without."

The open ended question asking the respondents to give their definition of what constituted "good quality audiovisual service and products" for their needs drew frequent comments along the line of "that's a hard one to pin down." Virtually all comments received, however, did relate specifically to the type or types of work the respondents needed from the BAVSC. The words "serviceable equipment," "responsiveness," "should look professional," "timeliness," "accurate," "sharp focus," "flexibility," etc. came up frequently. Generally, the Public Affairs personnel gave the most technical definitions. Film Library users wanted equipment that worked. Graphics users wanted accuracy. The definitions varied from well thought-out sentences to almost telegraphic words and phrases. Some examples are:

(Public Affairs Office/PA)"...we need a quality product in a timely manner. Time is essential for us, what is news today is history tomorrow....our photographs need

to be reproducible for newspapers and other printed products...good contrast, good color."

(Public Affairs Office/PA)"...good quality to us is where they can go out and shoot a job by themselves without an escort, once we tell them what we want."

(Office of Special Investigation)"...I need photography that accurately depicts the subject. For example, if there is tiny writing on a package, the photographers should get it to show up in the photograph...we need to accurately capture a scene so we can go back and recreate it to back up testimony."

(Library)"...I need a projector that is quiet, works well, doesn't delay my program or chew up the film."

(Safety)"...good quality is service within a reasonable time and people I can talk with who can interpret my needs... the quality of the work has to convey the intended message. It should be neat and professionally done, and use good techniques...I need someone I can talk with and say 'here's a rough idea, you work with it.' I don't want them to just copy my pencil sketch."

(Operations)"...we need accurate and visually pleasing slides by the suspense date...nice slides enhance the credibility of briefings."

(Wing Executive)"...good quality means responsiveness... the product should be creative and accurate...they should be amenable to overtime and rush requests."

(Squadron Executive) "...one I can get my hands on as fast as I can and that shows what I want."

(Numbered Air Force) "...quality is quick service with no mistakes...a 2-star general's briefing has to be correct."

Customer Evaluation: AV Services and Products

In the majority of the interviews (39 out of 41), the respondents had the information package in front of them during the telephone interview. Each person was asked if they were familiar with the rating scale shown, where they are to indicate the degree with which they either agree or disagree with a statement as spoken to them:

/	1	/	2	/	3	/	4	/	5	/
	strongly		somewhat		neither		somewhat		strongly	
	disagree		disagree		agree nor		agree		agree	
					disagree					

Approximately one-third had never used such a system. All, however, stated they understood how to use it from the directions given in the information package, or from the additional verbal instructions given at that time. It was explained that, even though the scale is numbered 1 through 5, the numbers do not necessarily represent equal intervals.

Using this 1-5 scale, the respondents were initially asked "Would you agree or disagree that the overall service

you have received in the past year from the base audio-visual service center has been generally acceptable?" Table 15 shows that the majority of the respondents (90%) agreed that the overall service was generally acceptable, while only a small percentage were neutral (5%) or disagreed (5%). Several respondents added comments along the line..."I'm glad you said 'generally acceptable,' because if you had said 'always acceptable' I would have disagreed."

TABLE 15
General Acceptability of Overall Service from BAVSC

Opinions	Travis	Pope	McGuire	McChord	Total
Agree	5	9	11	12	37
Neutral	1	0	0	1	2
Disagree	1	1	0	0	2
	7	10	11	13	41

The agreement on general acceptability of the overall service and prior experience with BAVSC use were compared, and it was determined that there was no trend or bias that would affect the analysis.

The respondents were next asked to agree or disagree with a series of statements pertaining to specific quality aspects of the services provided by the contract AV service center. The statements are printed in the information package, and were posed to the interview subjects in the format: "Referring to the 1-5 scale, would you agree or disagree that the Film Library personnel are generally courteous and helpful?"; "Would you agree or disagree that loan equipment and films are generally available when you need them?" (see Appendix K). The intention had been to ask the respondents to elaborate when they rated a statement either very highly or lower than their other ratings. However, virtually all voluntarily explained, often with detailed examples, the reason or reasons why they gave a particular rating to a statement. Appendix L shows how each of the respondents, by base, rated the 14 statements in this portion of the interviews. A few trends are noticeable:

1.) "Personnel are generally courteous and helpful" was highly rated across all three functions and at all four bases. Comments along the line of "...some of the nicest and most helpful people I've ever met" were common. Even if a respondent had a problem with a specific area, they were usually quick to point out that "...it's not the people's fault."

2.) Statement #5, under Photo Service: "On legitimate 'short fuse' or 'short notice' photographic requirements, the photo section generally provides rush or other non-routine service" was rated lower at all four bases, most noticeably at McGuire where all 11 respondents rated it lower. Public Affairs personnel, in particular, tended to rate this statement lower. Comments in this area centered on the length of the turnaround time allowed by the contract as opposed to what PA needed. Some examples are:

"...one day to develop a roll of film and then 4-5 more days for a print. If we had to live within the confines of the contract, we'd have a historian, not a newspaper."

"...this contract was written not considering some of PA's short notice requirements. We can designate work as priority and get film developed in 24 hours and a print in 48. That's a priority! Under a military system, I can get a print back in one hour."

"...we've virtually lost our documentation capability; for example, with hurricane relief efforts, we don't have the capability to get someone on the first aircraft."

"...we take 90% of our photos ourselves now, but they develop and print them. It would be helpful to do a story yourself and have a photographer take the pictures, not do

both yourself. We've made it a workable thing; not a desirable one, though."

3.) Respondents at two bases, Travis and McChord, tended to be less satisfied with the condition and the availability of AV loan equipment at their bases (statements 2 and 3 under Film Library).

Table 16 compiles average ratings for each statement, and a summated score for each function from the individual respondent rating data in Appendix L.

TABLE 16
Average Responses to AV Quality Points Statements

Base	<u>Film Library</u>			
	1)	2)	3)	(Sum)
Travis	4.8	3.5	3.8	(12.1)
Pope	4.9	4.8	4.6	(14.2)
McGuire	5.0	4.8	4.9	(14.7)
McChord	4.8	4.3	3.5	(12.6)

	<u>Graphic Arts</u>					
Base	1)	2)	3)	4)	5)	(Sum)
Travis	4.8	4.3	4.2	4.7	4.0	(22.0)
Pope	5.0	5.0	4.8	4.8	4.8	(24.4)
McGuire	5.0	4.7	4.8	4.5	4.4	(23.5)
McChord	4.6	4.6	4.7	4.6	4.4	(22.8)

TABLE 16 (Cont'd)

Base	<u>Photo Service</u>					(Sum)
	1)	2)	3)	4)	5)	
Travis	4.8	4.3	4.4	4.2	4.2	(22.0)
Pope	4.7	4.5	4.5	4.0	4.3	(21.9)
McGuire	4.6	4.3	4.0	4.0	3.4	(20.4)
McChord	4.7	4.5	4.6	4.8	4.4	(23.2)

Comparisons of Contract AV Service with Other Means
of AV Service

The next set of questions was designed to identify which of the respondents had used other AV service centers, such as all military, mixed military/civil service, or a different contract, and how those other centers were run. Table 11 shows that 80% of the respondents had experience with other AV service centers (in all cases except one, the previous AV service center experience was with a military operation). These 33 respondents were then asked to compare the acceptability of the service provided under the present contract with their previous experience; four abstained, claiming their use level was different and they could not make a valid comparison; six felt the present service was less acceptable; eleven felt it was about the same; twelve felt the present service was better. Table 17 shows the comparison by base. Of the 29 individuals able

to draw a comparison, 23 (79%) felt the AV service they were receiving under the present contract was the same as or better than that they had received under previous methods of BAVSC operation.

TABLE 17
Comparison of Contract AV Service with Other Experience

Base	Present is Lower Quality	Same	Present is Better Quality	Total
Travis	1	2	1	4
Pope	1	2	3	6
McGuire	3	3	2	8
McChord	1	4	6	11
	6	11	12	29

Asking the respondents to compare the AV service received under the present contract with that they had received from other types of BAVSCs resulted in some quite powerful outbursts, both pro and con the present system. The comments favorable to contracting were usually on the technical expertise of the personnel the contractor has hired. The unfavorable comments usually pointed to contractor personnel not understanding military matters, the

contract not covering their needs, the perceived mountain of paperwork needed to arrange to have a photograph taken during non-duty hours, or to their inability to get quick turnarounds on briefing slides.

Some representative responses received to the question: "How would you compare the acceptability of the overall service provided by your present contract AV service center with the other base audiovisual service center (or centers) you have had experience with?" are:

"...I'll tell you right off we would prefer dealing with military people. The military were 100% better in cooperation and quality of the finished product."

"...There's been no break in the service continuity... it's all excellent. I can't tell the difference, it's always been good."

"...I prefer contract over military...military always sends us (Public Affairs) the new guy and expects us to train him. Once he's trained, he runs the shop and doesn't shoot any more. The contractor has all competent people."

"...with a civilian-run place, it's business, cut and dried. For other than what's in the contract, they don't cooperate very well...they're out-of-touch with military matters...As far as quality, the photo labs are about equal...timeliness is better with the civilian...however, all the extras the military provides is much better, and extras make all the difference."

"...Graphics is far and away better; the quality, the speed, the timeliness, and with less people...no noticeable difference with the Film Library...with photo the only problem is getting the right work we need."

"...I have more control and can receive more response from the military...we're trying to run a military operation alongside a civilian agency and you can't do it...from 12-1 they won't answer their phones because they're at lunch, 10-10:15 and 2-2:15 they're on coffee breaks, and at 4:30 they're gone...it probably costs more to use the military, but we had some control. No one wants to pay the overtime so it's your tough luck."

"...Most AV people I've been around have been pretty good."

"...(this person's experience was with a previous AV contract) it was 150% better with the old contract. They were more agreeable and it was easier to get things done. This contractor made a lower bid and we can't get what we need to get...quality-wise, it's the little things that make the difference between acceptable and outstanding work... when the new contractor came in he kept [woman's name] for a month but cut her pay. [name of other contract] was more expensive, but he had better quality...he could hire better quality people."

"...the current system is equal to or slightly ahead of the military...there are few, if any, rejects of work caused by their own lack of expertise...we had rejects at the other places."

"...I prefer the previous system...military understand the mission and the priorities of the military system better than civilians...they are motivated and not constrained by 8-5 hours...they're not cutting corners to give the minimum product."

"...the present contract is far superior...visualization is a big help...their general courtesy and artistic talent is higher...they have more experience and do more quality work."

"...they're about equal...these people are new at the job and they're trying...they've got a lot of ropes to learn -- military ropes, and that takes a while."

AV Service Improvements and/or Problems Attributable to Contract Operations

Responses to the question: "Have you observed or experienced any benefits or improvements to AV service that you can attribute to the fact that the base AV service center is a contract operation?" usually summarized points the respondents had made earlier in the discussion or cut the interviewer off before the question was finished with

a resounding "no." Overall, 37% felt there were benefits as a result of contract operations and stated perceptions of stability of personnel, professionalism of the personnel, dependability of the product quality, and timeliness. Forty-eight percent felt there were no benefits or improvements in AV service that they could attribute to contract operations. Fifteen percent did not feel qualified to answer. Table 18 shows the responses by base.

TABLE 18
Contract Operation Improves AV Service

Opinion	Travis	Pope	McGuire	McChord	Total
Yes	2	3	4	6	15
No	3	3	7	7	20
Not Qualified to answer	2	4	0	0	6
	7	10	11	13	41

Some examples of comments received as to perceived benefits of contract AV operations are:

(Consolidated Base Personnel Office/CBPO) "...the people treat it as a universal type job and try to give you the best service possible...under the military, someone is always disgruntled and will do the job when he gets to it...

the civilians here give the best they can...it's improved the service...word-of-mouth is selling the program...they're doing a damn good job."

(Public Affairs Office/PA) "...the quality of the people is better all the way around...they care...they know if they screw up they can get fired...you can't beat this contract, we've had minimal problems."

(Public Affairs Office/PA) "...no, none...I expected to see improved quality in the photos because of hiring professional photographers. Instead, we have people who call themselves professionals, but they're not photo-journalists...they may know all the technical aspects of developing and printing, but they are no professional photographic corps...there's been no improvement in quality."

(Numbered Air Force) "...the prime benefit is I have a contractor who has a three year contract he wants renewed and he cares about doing a good job. He's not worried about a PCS move...the contractor here seems to pitch in and help us -- we have a good working relationship...but you need a good contract instrument that fosters a good contract relationship...the customer needs to be able to talk directly with the contractor to discuss problems...the service I'm getting is top notch...if I were not at a numbered Air Force and needed a slide, I might not get this service; however, I've got more horsepower inherently in my position."

(Security Police Squadron) "...no, I can't really see any improvement...the service has been consistently good all along no matter who has operated the AV service center."

Responses to the question: "Have you had any problems, difficulties, or inconveniences in using the present AV service center that you can attribute to the fact that the base AV service center is a contract operation?" also usually summarized points the respondents had made earlier in the discussion. Most respondents were able to identify whether or not the problems they did have were actually attributable to the contract, or would have existed regardless of the system. The problems most frequently identified with contract operations were the strict adherence to work hours, inadequate personnel hired by the contractor, the lack of understanding of military systems, no office symbol for sending work through base distribution systems, and using low quality materials. Overall, 49% felt their problems with AV service were attributable to the contract operation. Fifty-one percent either had no problems or they were not ones which they could attribute to contract AV operations. Table 19 shows the responses by base.

Comparing the respondents who attributed AV service problems to contract operations with those who either did or did not attribute improvements in AV service to contract

TABLE 19

Contract Operation Causes AV Service Problems (Opinions)

Opinion	Travis	Pope	McGuire	McChord	Total
Yes	2	3	7	8	20
No	5	7	4	5	21
	7	10	11	13	41

operations showed no consistent relationships. Respondents who identified improvements were equally likely to also identify a problem.

Some examples of problems in AV service which respondents attributed to contract operations are:

(Public Affairs Office/PA) "...their use of low quality materials, primarily print paper, is a problem... apparently, they do it in order to keep their bid low or to increase profits...the contract should specify the type (brand name if necessary) of minimum quality materials that will be accepted."

(Squadron Executive Officer) "...they seem to need more advance notice for work, but it's not serious enough to cause me to complain."

(Wing Intelligence) "...they seem to have a hard time getting some supplies for Graphics...they seem to be afraid

to use any new illustrative ideas, and they hate to use a lot of overlays for our maps."

(Public Affairs Office/PA) "...there's only one big problem and I don't know any way around it...the contractor has hired only the minimum number of people to do the job in order to make the contract price and still make a profit... this is a hindrance since the contract calls for things for them to do and there just aren't people enough to do it...in any given week it's hard in Photo to have two people take pictures and develop them and process them, too...he's got an inadequate staff with the thought of keeping expenses down...I have to work around it...I use my resources and tax them as much as possible...I just save the things I can't do for the photo lab...I'd rather do it another way."

(Public Affairs Office/PA) "...the prime problem areas are turnaround times for photographs and sending photographers out on exercises and disaster relief efforts...it's easier to send someone out of this office since no one can give me an answer yet on how else to do it...we're working on a revision to the contract to cover their ignored areas, and to stipulate for PA to have short turnaround times."

(Wing Presentations) "...the contractor is always looking for the cheapest mode of production and to cut corners... the results come out accordingly...under this system the problem could be solved only with far more negotiation than

I am able to put in...their priorities are askew, and you have to justify your quality level each time you go in... with the wing commander's briefings, I don't expect crayon drawings and some of their stuff looks like 6th grade art class."

(Morale, Welfare and Recreation) "...they need an office symbol...everything must be handcarried to them and they do stuff when it comes in the door...since they're a contractor and not a base organization, they're not on the base distribution system and they won't accept anything unless it's handcarried."

(Public Affairs Office/PA) "...these people work for the buck...military work for something else...if a guy is looking at the clock, they don't go that extra mile, the military does...but these are civilians and they're motivated by something else...how to solve it? Only by more people speaking up...by things like you're doing now with this survey...by job descriptions that aren't cut and dry, since this job requires more flexibility...there's no real answer... if you're lucky, you get a good civilian...otherwise, you do a lot yourself."

(Consolidated Base Personnel Office) "...no problems from my side of the house...everything is goin' so doggone well I believe they're doin' the best job they can...the best job and no delays to us."

(Protocol) "...the quality of the people is not there... they can't afford a better quality...it seems like when you go for price instead of quality, you lose a lot...you sacrifice quality for price."

(Safety) "...no problems here...our accident investigating workload is written into the contract, so there's no problem there...we haven't asked for other stuff."

(Wing Executive) "...yes, there are problems with rush items, non-routine things, anything that is out of the normal work cycle requirements...to solve them we've somehow either held their hands to the fire and told them to stay late, slipped our requests, or made do without... we've tried to adjust our requests so we indeed have rush requests...we've cut down on the number of requests we categorize as rush...we're more aware now of what we might need on a rush basis, but getting it is still a problem."

Staffing Level

Since one of the ways a contractor can keep the contract bid price low is by hiring exactly the minimum number of people necessary for the workload, the respondents were asked if they believed the AV contractor at their base had hired an adequate number of personnel to handle the work. The most common response was some variation on..."for my needs, yes." Overall, 63% of the respondents felt the

contractor had hired enough personnel to handle the workload. Twenty percent felt staffing was inadequate and 17% had no opinion. Table 20 shows the breakdown by base.

TABLE 20
Adequate vs Inadequate Contract AV Manning

Opinion	Travis	Pope	McGuire	McChord	Total
Adequate	3	6	8	9	26
Inadequate	1	3	3	1	8
No Opinion	3	1	0	3	7
	7	10	11	13	41

Comparison of the respondents who believed that staffing was inadequate at the contract AV service center with the functions they primarily used revealed that seven of the eight were heavy photo services users, and that four of the eight were from Public Affairs offices. Some of the comments received to this question were:

(Professional Military Education) "...there's not always enough people to handle the workload at the base... they could use one more photographer...Graphics is always rushed with only three people...I don't know how they get out the work they do."

(Chapel) "...the manning is very adequate for my needs, but possibly it's inadequate in Photo and Graphics if big projects come in."

(Numbered Air Force) "...they do real good quality work and quickly...there's not much backlog, so yes, they must have enough people."

(Wing Executive) "...I believe so, but I just don't really know...I get my stuff back when it's promised."

(Operations Officer) "...Yes, but I'm sure the people who work there don't feel that way, they never seem to stop moving."

(Protocol) "...right now it's hard to say...one Graphics girl just quit and they're short...in Photo they have enough people, but not people who know what they're doing."

(Consolidated Base Personnel Office) "...no...he's hired people, but in the last month or two he's hired two people and let both go...seems he has a quick turnover of people...I don't know if he's unwilling to train them or pay them or what, but there's not an adequate number of people to do what he has to do."

(Safety) "...I really haven't any reason to think not... sometimes they complain, but it hasn't caused any problem to me...they put in a lot of overtime, but the products come out when I need them...I guess he's got enough people."

(Management Analysis) "...from my point of view, yes...if they didn't, we'd get less timely service and we don't."

Additional Comments

The standard format the respondents used to answer the question about additional comments seemed to be: "No, I don't, except to say...." and then launch off into either personal compliments for the people working in the contract center or a recap of a problem stated earlier. Only a few brought up a subject that had not already been touched on, and several of these applied to the Air Force Film catalog being out-of-date. Some of the comments received in this area were:

(Public Affairs Office/PA) "...I will brag this one up all the way...if everyone were as lucky as me they should be happy with a civilian contract...we have to work together... we've had several little problems, but they've been worked out...I've heard complaints from other parts of the base, but I don't think they're warranted."

(Numbered Air Force) "...no, just they're real helpful... they're good at writing up slides...they like what they're doing and that helps."

(Public Affairs Office) "...normally, it's a good product when we finally get it from them...there's just no control over when we get it...I don't know how necessary a combat

documentation capability is, but for disaster relief documentation a military person is worth having and we just don't have it...I guess guinea pigs always take it in the ear."

(Public Affairs Office) "...for what the Air Force bought, they're getting a raw deal."

(Consolidated Base Personnel Office) "...no...in a nutshell, I don't know how they could improve service more except to fill out the paperwork themselves...they're doing a tremendous job of it...we get good service and I can't kick about it...it's been quite a change since it went civilian contract here...they know where I'm coming from and I know where they're coming from and things work out...one of the best operations I've seen in a long time."

(Training NCO) "...no, they're not really essential to us...the films we could use are never there...the AV catalog is outdated and it takes so long to get anything in."

(Safety) "...no, not really, you covered the waterfront pretty well...good quality people make all the difference in the world...if the Air Force could ever get their film catalog up to date, it would be a big help...we can work with these people, they're extremely eager to please, that makes it work...not to say we don't have some knock-down drag-outs occasionally, or that we don't take stuff back occasionally, but they fix it immediately and that's good..."

I'd be in miserable shape without that support, we use it extensively."

(Fire Department) "...can't think of any...they are there to serve and it appears they put forth their best effort...they are an asset when I need them."

(Professional Military Education) "...just that their services and products are limited to the contract specs [specifications] regardless of what the real world requirements are."

(Numbered Air Force) "...overall, we get good service because of my level."

(Consolidated Base Personnel Office) "...can't think of anything...currently I'm very satisfied with the operation here and they've been very responsive."

Acceptable Quality Level

The Quality Assurance Evaluator at each of the four bases was contacted to ascertain how well the contractor had met the acceptable quality levels specified in the SOW. At Travis AFB the response was that the service is as good as or better than SOW specifications. At McChord AFB the QAE stated that there had been only one formal complaint, which was based on a communication problem. It was due to vague wording of a specific area of the SOW which resulted in a communication problem between the QAE and the contractor. Other than that, McChord AFB's QAE felt there were no

problems. At McGuire AFB the response was generally no problems. The minor problems that had arisen were due to the wording of the SOW. There had been one deficiency report turned in. A deficiency report is a formal accusation of the contractor not meeting the SOW quality level standards, and contains a listing of the deficient items discovered during an inspection. They are of such a nature that part of the contract price, depending on the size of the violation, may be withheld. In the case of McGuire AFB, the deficiency report contained only one item. Pope AFB is in a different position. During the first 14 month period, there were no problems according to the QAE. However, MAC required all bases whose contracts were held with a particular company to seek new bids. Since Pope AFB's contract was held by that company, Pope AFB was forced to seek new bids. Although this particular company was allowed to submit a bid, a different company won the contract. Since then, there have been three deficiency reports submitted in a seven month period. The last report contained 38 separate items.

In summary, QAEs at three of the four bases felt their contractor met the acceptable quality level specified in the SOW. However, Pope AFB's contractor, based on the deficiency reports, is having problems meeting the acceptable quality levels specified in the SOW.

Decision Points for Quality Level

Recall from Chapter II that the decision points for determining acceptable quality in the services and products provided under contract had been:

1. If the quality level of the contractor's work exceeds both the performance considered acceptable by the customers and the standards established in the SOW, there is an increase in service quality.
2. If the quality of the contractor's work is equal to or below the performance considered acceptable by the customers, but equal to or above the standards established in the SOW, then the service quality is acceptable.
3. If the quality of the contractor's work is equal to or below the performance considered acceptable by the customers, but below the standards established in the SOW, then there is a loss of service quality.

A review of the responses received to the interview questions is:

(1) From Table 15, 90% of the respondents agreed that the overall service provided under contract was generally acceptable.

(2) From Table 17, 79% of the respondents able to make a comparison believed the AV service received under contract was the same (38%) or better than (41%) that received under previous methods of operation (in 28 of 29 cases, this meant a military operation).

(3) From Table 18, 37% of the respondents could attribute improvements in AV service to the contract operation.

(4) From Table 19, 49% of the respondents could attribute problems in AV service to the contract operation, 51% could not attribute any problems in AV service to the contract operation.

Next, a brief review is presented of the statements from the QAEs of the AV contracts at the four bases as to how well the contractors had met the Statement of Work (SOW) standards:

(1) At Travis AFB, the work was as good as or better than the SOW specifications.

(2) At McChord AFB, there were no problems in meeting the standards.

(3) At McGuire AFB, the contractor was meeting the standards.

(4) At Pope AFB, the first contractor had no problems in meeting the contract specifications. The present contractor has a substantial number of formal accusations on record of failure to meet the contract specifications.

Based on the above points of the benefit analysis, the conclusions are:

(1) The Travis AFB contract AV service falls under decision point #1: that there has been an increase in service quality.

(2) The McChord, McGuire and the original contractor at Pope AFBs' contract AV service falls under decision

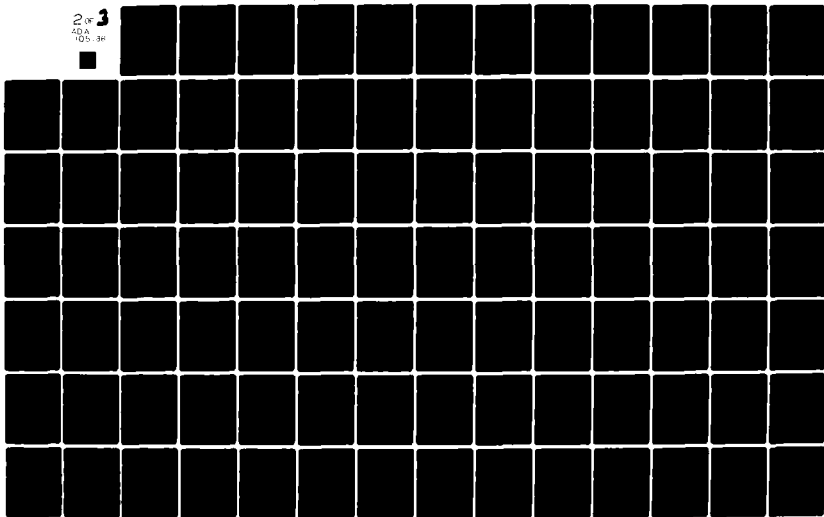
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AIR FORCE INST OF TECH WRIGHT-PATTERSON AFB OH SCHOOL--ETC F/G 5/9
BASE AUDIOVISUAL SERVICE CENTER CONTRACT CONVERSIONS: A FOLLOW--ETC(U)
JUN 81 C H CHRISTOPHER, L R OLSON
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point #2: that service quality is acceptable.

(3) The present Pope AFB contract AV service falls under decision point #3: there is a loss of service quality.

(4) The overall conclusion of the benefit analysis is that the quality of the AV service and products provided by the contract Base Audiovisual Service Centers is acceptable or better in three of the four cases surveyed.

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

The primary objective of this research effort was to evaluate whether four base audiovisual service centers in the Military Airlift Command, which were converted to contract operations in FY-79, have shown the cost effectiveness in practice which was projected to occur by OMB Circular A-76 comparative cost criteria. The methodology of analysis used two approaches. The first consisted of re-accomplishing the original cost comparisons of contract vs inservice operations by using the actual annual cost and usage data, when available, in place of the forecast data, which is referred to as Cost Comparison 1. Since the original cost comparisons had been performed under the 1976 version of OMB Circular A-76, additional cost comparisons were constructed using the revised criteria in the current 1979 version of the circular, and are referred to as Cost Comparison 2. The second approach used to evaluate cost savings in the conversions to contract operations was an analysis of the quality of the service and products provided under contract. This was accomplished by surveying frequent users of the base audiovisual service centers at the four bases to determine their expectations of mission necessary audiovisual (AV) service quality and their perceptions of how well contract AV service was achieving these

levels. In addition, the degree to which the contractors were meeting the acceptable quality levels specified in the Statements of Work (SOWs) was considered. Chapter III provided a detailed analysis of the data from the two cost comparisons and of the responses to the customer interviews. The following comments will restate the research decision points and summarize the conclusions drawn from the follow-up cost comparisons and the interview responses. The decision points for the overall cost effectiveness evaluation from Chapter II are:

1. If both Cost Comparison 1 and 2 show a cost savings and there is not a loss of quality, the conversion is cost effective.
2. If only Cost Comparison 2 shows a cost savings and there is not a loss in quality, the conversion is cost effective based on the OMB A-76 revised in 1979.
3. If only Cost Comparison 1 shows a cost savings and there is not a loss of quality, the conversion is cost effective based on the old OMB A-76, but not the revised one.
4. If Cost Comparison 1 and 2, or 2 alone, show a cost savings, but with a loss in quality, the conversion is not cost effective.
5. If both cost comparisons show no cost savings, with or without a loss of quality, the conversion is not cost effective.

The following bases showed a cost savings under Cost Comparison 2: Travis, McChord and McGuire AFBs. Under the benefit analysis, it is concluded that the service quality of the AV contractor at these same three bases is acceptable.

Based on this information, it is concluded that Travis, McChord, and McGuire AFBs fall under decision rule number 2 that conversion to contract service is cost effective based on the OMB Circular A-76 revised in 1979.

Pope AFB is split into two categories because of the change in contractors at the end of the first 14 month period. Both Cost Comparison 1 and Cost Comparison 2 show a cost saving under the contractor operation. The benefit analysis shows the original contractor's service quality is acceptable. Based on this, the initial year of contract AV service at Pope AFB falls under decision rule 1, that the conversion to contract service is cost effective. However, in the second year of the AV contract with a new contractor, there have been both a number of deficiency reports turned in and quality problems claimed by respondents to the interviews. Based on this information, the conclusion is a loss of AV service quality. Therefore, the second year of operation at Pope AFB falls under decision rule 4, that even though the cost comparisons showed a cost savings, the loss in quality makes the conversion to contract service not cost effective.

Recommendations

1. An underlying philosophy of OMB Circular A-76 is to improve the management and cost to the Government of commercial and industrial type activities by making the

Government manager think more like a profit and loss manager rather than just a bureaucrat concerned with job accomplishment regardless of costs (19). However, that philosophy did not appear evident in the perceptions of the respondents interviewed in this study. Much more prevalent is an "accomplish the mission" attitude, and the controls on AV services caused by the contract operation are viewed as a hindrance by many of the respondents, in spite of the fact that 90% agreed it was providing generally acceptable service. The recommendation is that in light of the increasing emphasis that has been and will continue to be placed on using the most economical method of providing CITA services (19), an educational effort should be undertaken at base level to foster the philosophy that contract cost control is now a part of everyone's mission, and not just of the people in procurement and budget offices.

2. The highest satisfaction levels with the quality of AV service provided under contract were from respondents who claimed to have good working relationships with the contractor and an ability to compromise on problems as they arose. The lowest satisfaction levels were from respondents who claimed the only way they got the service they needed was to negotiate and argue with the contractor. However, those who worked well with the contractor also had their needs specified in the Statements of Work (SOWs). Those who claimed to be continually arguing with the contractor tended to claim that their needs had not been considered when the

contract was written. Further questioning of these latter respondents revealed that only a few had even the remotest idea on how to improve their position. Few understood that one of the duties of the Quality Assurance Evaluator (QAE) is to document any quality problems experienced by customers, and to recommend either legal action against the contractor or possible contract changes. Very few also understood that a contract could be changed once it had been let. The recommendation is that an educational effort is necessary at base level to instruct the average military (and civil service) user on the means available to modify and change service contracts to suit their legitimate needs.

3. The majority of the respondents perceived AV services as extremely necessary to their mission or job. Perceptions of the quality of these extremely necessary AV services which were now provided under contract, however, ranged from highly complimentary and bragging, to claiming they (the respondents) were "guinea pigs taking it in the ear." Since the function registering the most problems was Photo Service, the recommendation is to re-evaluate (a) the turnaround times on photography required by base customers, (b) the minimum amount of advance notice required to schedule a photographer's service, and/or the list of organizations on each base authorized short notice photographic services, and (c) the minimum quality of supplies and materials used

which will be acceptable, for possible changes to the contract SOWs.

4. A concern was raised several times about the loss of the capability to send a photographer to document exercises and disaster relief airlifts. The recommendation here is twofold: first, for future contracting of base AV services, a more careful separation or disaggregation of which AV functions can and cannot either economically or mission-wise be contracted out should be made. If a base is tasked to handle frequent exercises and disaster relief missions which require a photographic record of the events, perhaps Photo Service on that base, or part of the photo service functions should not be considered for contracting out. The second recommendation is to consider the position of the QAE as a military slot, and assign a military photographer of at least Technical Sergeant rank to this position of overseeing the contract operation. The position could be a three or four year controlled tour and would not only allow these Non-Commissioned Officers (NCOs) to use their management abilities, but would allow the option that he/she could be tasked for documenting relief efforts as necessary, and would avoid the necessity of the contractor increasing the contract price to cover such contingencies.

5. In the case of Pope AFB, the contract should be reviewed. Particular attention should be given to the SOW so that future SOWs are concise and quite specific in their content. The contractor should also be reviewed with attention paid to competency of staff and managers. If necessary, Pope AFB should consider soliciting new bids for future AV service center operations.

6. In the process of evaluating the original cost comparisons, it was noticed that the contractors had not included an inflation factor in their bids. The Government, on the other hand, does include inflation as part of its costs for out-years. It is reasonable, with double-digit inflation, that the contractor will experience inflation, too. The actual data shows an increase in cost above the original bid at every base for the second year. The recommendation is that, if the contractor does not include a reasonable inflation factor in their bid, the Government should apply the same inflation factor it uses in calculating its own costs. The only exception should be if the contractor explains why the inflation factor is not appropriate. This would make the cost comparison more equitable.

APPENDIX A

SURVEY INFORMATION PACKAGE



DEPARTMENT OF THE AIR FORCE
AIR FORCE INSTITUTE OF TECHNOLOGY (ATIC)
WRIGHT-PATTERSON AIR FORCE BASE, OH 45433

REPLY TO
ATTN OF

LSOG/ Capt Olson, 56569

SUBJECT

Audiovisual Services Survey

TO

1. OMB Circular A-76 (revised March 1979) reaffirmed the Government's general policy of relying on private sources for goods and services when available and when they are more economical than the Government providing its own. In implementing this policy in the audiovisual services area (Graphic arts, Photography, Film Library), the Air Force initiated a series of AFM 26-1 comparative cost analyses of selected base audiovisual service centers to determine if contract vs in-service support would be the most economical method of program accomplishment. Within the Military Airlift Command (MAC), six base audiovisual service centers were identified initially for conversion from military to commercial contract or in-service civilian operations, with a few others determined exempt from consideration. On 1 Aug 79 four base AV service centers (McChord, Travis, McGuire, and Pope AFBs) were converted to contract operations, and two (Charleston and Dover AFBs) converted to in-service civilian operated facilities. Little Rock and Altus AFBs were among those exempted from consideration.
2. A thesis team from the Air Force Institute of Technology, sponsored by HQ MAC/XPPV, is working on studying whether contract audiovisual service is indeed as cost-effective as initially projected under the OMB Circular A-76 criteria. In their research a number of interviews are required. You have been identified as being able to provide key input for one of these surveys. Within the next two weeks you will be contacted by Captain Lois Olson or Captain Charles Christopher to set up an interview at your convenience. The interview will last approximately one-half hour and will cover the attached points of audiovisual service quality. Your evaluation of the quality of audiovisual service provided by the base AV service center will be sought. Your thoughtful advanced consideration to the topic is solicited.
3. The output of this research has the potential of contributing significantly to improving Air Force audiovisual services contracting procedures in the years to come. Responses will be privileged information and names will not be used in data analysis or conclusions. Your cooperation will be greatly appreciated by the survey team, the staff here at the School of Systems and Logistics AFIT, and HQ MAC/XPPV.

Ronald G. Blackledge

Ronald G. Blackledge, Lt Col, USAF
School of Systems and Logistics

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INTERVIEW KEY POINTS:

AUDIOVISUAL SERVICES QUALITY SURVEY

1. a) How frequently are you a customer of the Base Audio-visual Service Center (Film Library, Graphic Arts, Photo Section)?

b) What percent of your requests require work outside the normal duty time work week?

c) How necessary are these services to your mission, or what impact would it have on your job or mission to be without this AV service?

d) For your particular needs, what is good quality audio-visual service?

2. a) On a scale of 1-5, would you say the overall service you have received in the past year from the base AV service center has been acceptable?

/	1	/	2	/	3	/	4	/	5	/
	strongly		somewhat		neither		somewhat		strongly	
	disagree		disagree		agree nor		agree		agree	
					disagree					

b) On the same 1-5 scale, please rate the acceptability of the following individual factors:

FILM LIBRARY:

1) Personnel are courteous and helpful.

/	1	/	2	/	3	/	4	/	5	/
---	---	---	---	---	---	---	---	---	---	---

2) Loan equipment and films are generally available when needed.

/	1	/	2	/	3	/	4	/	5	/
---	---	---	---	---	---	---	---	---	---	---

3) The working condition of loan equipment is generally good.

/	1	/	2	/	3	/	4	/	5	/
---	---	---	---	---	---	---	---	---	---	---

GRAPHIC ARTS:

- 1) Personnel are courteous and helpful.

1 / 2 / 3 / 4 / 5 /
strongly somewhat neither somewhat strongly
disagree disagree agree nor agree agree

- 2) Finished work accurately represents what was requested.

1 / 2 / 3 / 4 / 5 /

- 3) Finished work is usable for the purpose intended.

1 / 2 / 3 / 4 / 5 /

- 4) Work is finished by the time requested.

1 / 2 / 3 / 4 / 5 /

- 5) On legitimate "short fuse" requirements, rush or other nonroutine service is provided.

1 / 2 / 3 / 4 / 5 /

PHOTO SERVICE:

- 1) Personnel are courteous and helpful.

1 / 2 / 3 / 4 / 5 /

- 2) Finished work accurately portrays what was requested.

1 / 2 / 3 / 4 / 5 /

- 3) Finished work is usable for the purpose intended.

1 / 2 / 3 / 4 / 5 /

- 4) Work is finished by the time requested.

1 / 2 / 3 / 4 / 5 /

- 5) On legitimate "short fuse" requirements, rush or other nonroutine service is provided.

1 / 2 / 3 / 4 / 5 /

3. a) Have you had experience with any other type of BAVSC? (Please specify.)

b) (If Yes to above question) On the same 1-5 scale previously used, would you say the overall service provided by this other BAVSC was acceptable?

 / 1 / 2 / 3 / 4 / 5 /

c) (If Yes to 3a) How would you compare the service acceptability of this other BAVSC with the present BAVSC, and why?

4. What benefits or improvements in AV service have you seen that can be attributed to the BAVSC being a contract operation?

5. a) Have you had any problems or difficulties in using the present AV service center that can be attributed to the contract operation?

b) Please specify.

c) Has it (they) been resolved?

d) What caused it (them)?

e) Could it (they) have been prevented?

6. Do you have any general comments on the quality of the service and products from the AV service center you would like to make?

APPENDIX B

ORIGINAL COST COMPARISONS

Travis AFB, McChord AFB, McGuire AFB, and Pope AFB

COST ANALYSIS WORKSHEET		INSTALLATION Travis AFB CA		ACTIVITY Base Audiovisual Services			
COST ELEMENTS		YEARS OF OPERATION					
		FIRST (14 MOS)	SECOND	THIRD	3 YEAR TOTAL		
CONTRACT OPERATIONS							
1. TRANSPORTATION		Wash Item	--	--	--	--	--
2. CONTRACT ADMINISTRATION AND RELATED COSTS		23,201	21,138	22,300	66,639		
3. GOVERNMENT FURNISHED MATERIALS AND SUPPLIES		N/A	N/A	N/A	--		
4. CONTRACTOR USE OF GOVERNMENT OWNED EQUIPMENT AND FACILITIES		Wash Item	--	--	--		
5. STANDBY MAINTENANCE COST		N/A	N/A	N/A	--		
6. OTHER COSTS		N/A	N/A	N/A	--		
7. SUBTOTAL (Sum of Lines 1 through 6)		23,201	21,138	22,300	66,639		
8. CONTRACT COST		229,462	175,080	175,080	579,622		
9. TOTAL CONTRACT OPERATIONS COST (Sum of Lines 7 and 8)		252,663	196,218	197,380	646,261		
		(14 MOS)					
GOVERNMENT OPERATIONS							
10. CIVILIAN PERSONNEL COSTS		195,654	178,252	188,056	561,962		
11. MATERIALS, SUPPLIES, UTILITIES AND OTHER SERVICES		38,963	33,397	33,397	105,757		
12. MAINTENANCE AND REPAIR		1,635	1,401	1,401	4,437		
13. OVERHEAD COSTS		N/A	N/A	N/A	N/A		
14. OTHER COSTS		N/A	N/A	N/A	N/A		
15. SUBTOTAL (Sum of Lines 10 through 14)		236,252	213,050	222,854	672,156		
16. INSURANCE (Line 15 Multiplied by 0.003)		709	639	669	2,017		
17. OTHER INDIRECT COSTS (Line 15 Multiplied by 0.02)		4,725	4,261	4,457	13,443		
18. DEPRECIATION		N/A	N/A	N/A	--		
19. INTEREST		N/A	N/A	N/A	--		
20. SUBTOTAL (Sum of Lines 15 through 19)		241,686	217,950	227,980	687,616		
21. FEDERAL TAXES (Line 8 multiplied by 1.83%)		4,199	3,204	3,204	10,607		
22. TOTAL GOVERNMENT OPERATIONS COST (Sum of Lines 20 and 21)		245,885	221,154	231,184	698,223		
23. COST DIFFERENCES		6,778	24,936	33,804	51,962		
24. PERCENT DIFFERENCES		2.757	11.275	14.622	7.442		
REMARKS							
First year in-house cost data established utilizing 14 months (1 Aug 79 - 30 Sep 80).							
STUDY RESULT							
CONTRACT		CONVERT TO		REMAIN			
DATE		IN-HOUSE		IN-HOUSE			
PREPARED BY		CONTRACT SIGNATURES		APPROVED BY			

COST ANALYSIS WORKSHEET		INSTALLATION McChord AFB	ACTIVITY Audiovisual Services
COST ELEMENTS			
CONTRACT OPERATIONS			
1. TRANSPORTATION		FIRST	3 YEAR TOTAL
2. CONTRACT ADMINISTRATION AND RELATED COSTS		0	0
3. GOVERNMENT FURNISHED MATERIALS AND SUPPLIES		23,201	22,300 66,639
4. CONTRACTOR USE OF GOVERNMENT OWNED EQUIPMENT AND FACILITIES		0	0
5. STANDBY MAINTENANCE COST		0	0
6. OTHER COSTS		4,550	0 4,550
7. SUBTOTAL (Sum of Lines 1 through 6)		27,751	22,300 71,189
8. CONTRACT COST	*	190,461	163,252 516,965
9. TOTAL CONTRACT OPERATIONS COST (Sum of Lines 7 and 8)	*	218,212	185,552 588,154
GOVERNMENT OPERATIONS			
10. CIVILIAN PERSONNEL COSTS		192,841	175,646 185,309 553,796
11. MATERIALS, SUPPLIES, UTILITIES AND OTHER SERVICES		22,240	19,063 19,063 60,366
12. MAINTENANCE AND REPAIR		429	368 368 1,165
13. OVERHEAD COSTS		0	0 0 0
14. OTHER COSTS		0	0 0 0
15. SUBTOTAL (Sum of Lines 10 through 14)		215,510	195,077 204,740 615,327
16. INSURANCE (Line 15 Multiplied by 0.003)		647	585 614 1,846
17. OTHER INDIRECT COSTS (Line 15 Multiplied by 0.02)		4,310	3,902 4,095 12,307
18. DEPRECIATION		0	0 0 0
19. INTEREST		0	0 0 0
20. SUBTOTAL (Sum of Lines 15 through 19)		220,467	199,564 209,449 629,480
21. FEDERAL TAXES (Line 8 Multiplied by)	*	3,485	2,988 2,988 9,461
22. TOTAL GOVERNMENT OPERATIONS COST (Sum of Lines 20 and 21)	*	223,952	202,552 212,437 638,941
23. COST DIFFERENCES	*	5,740	18,162 26,885 50,787
24. PERCENT DIFFERENCES	*	2,561	8,971 12,651 7,941
REMARKS * To be entered after bid opening and determination of lowest acceptable bidder. Decisions will be made based on the three year cost column for both contract and government costs.			
STUDY RESULT			
CONVERT TO			
CONTRACT	IN-HOUSE	CONTRACT	IN-HOUSE
DATE	PREPARED BY	APPROVED BY	

COST ANALYSIS WORKSHEET		INSTALLATION McGuire AFB NJ		ACTIVITY Audiovisual Service Center			
COST ELEMENTS		YEAR(S) OF OPERATION					
		FIRST	SECOND	THIRD	3 YEAR TOTAL		
CONTRACT OPERATIONS							
1. TRANSPORTATION		N/A	N/A	N/A	N/A	N/A	N/A
2. CONTRACT ADMINISTRATION AND RELATED COSTS		18,965	17,279	18,229	54,473		
3. GOVERNMENT FURNISHED MATERIALS AND SUPPLIES		N/A	N/A	N/A	N/A	N/A	N/A
4. CONTRACTOR USE OF GOVERNMENT OWNED EQUIPMENT AND FACILITIES		Wash Item	Wash Item	Wash Item	Wash Item	Wash Item	Wash Item
5. STANDBY MAINTENANCE COST		N/A	N/A	N/A	N/A	N/A	N/A
6. OTHER COSTS		N/A	N/A	N/A	N/A	N/A	N/A
7. SUBTOTAL (Sum of Lines 1 through 6)		18,965	17,279	18,229	54,473		
8. CONTRACT COST		250,891	216,050	219,864	686,805		
9. TOTAL CONTRACT OPERATIONS COST (Sum of Lines 7 and 8)		269,856	233,329	238,093	741,278		
GOVERNMENT OPERATIONS							
10. CIVILIAN PERSONNEL COSTS		242,745	221,092	233,234	697,071		
11. MATERIALS, SUPPLIES, UTILITIES AND OTHER SERVICES		30,583	26,214	26,214	83,011		
12. MAINTENANCE AND REPAIR		159	136	136	431		
13. OVERHEAD COSTS		N/A	N/A	N/A	N/A	N/A	N/A
14. OTHER COSTS		N/A	N/A	N/A	N/A	N/A	N/A
15. SUBTOTAL (Sum of Lines 10 through 14)		273,487	247,442	259,584	780,513		
16. INSURANCE (Line 15 Multiplied by 0.003)		820	742	779	2,341		
17. OTHER INDIRECT COSTS (Line 15 Multiplied by 0.02)		5,470	4,949	5,192	15,611		
18. DEPRECIATION		N/A	N/A	N/A	N/A	N/A	N/A
19. INTEREST		N/A	N/A	N/A	N/A	N/A	N/A
20. SUBTOTAL (Sum of Lines 15 through 19)		279,777	253,133	265,555	798,465		
21. FEDERAL TAXES (Line 8 multiplied by 1)		4,591	3,954	4,024	12,569		
22. TOTAL GOVERNMENT OPERATIONS COST (Sum of Lines 20 and 21)		284,368	257,087	269,579	811,034		
23. COST DIFFERENCES		14,512	23,758	31,486	69,756		
24. PERCENT DIFFERENCES		5.10	9.24	11.68	8.60		
REMARKS							
STUDY RESULT							
CONTRACT		CONVERT TO		REMAIN			
DATE		IN HOUSE		CONTRACT SIGNATURES		IN-HOUSE	
PREPARED BY		APPROVED BY					

COST ANALYSIS WORKSHEET		INSTALLATION Pope AFB NC		ACTIVITY AUDIOVISUAL SERVICES 1807-Photographic, Film & TV Services			
COST ELEMENTS		YEARS OF OPERATION					
		FIRST	SECOND	THIRD	3 YEAR TOTAL		
CONTRACT OPERATIONS							
1. TRANSPORTATION		N/A	N/A	N/A	N/A	N/A	N/A
2. CONTRACT ADMINISTRATION AND RELATED COSTS		23,164	21,138	22,300	66,602		
3. GOVERNMENT FURNISHED MATERIALS AND SUPPLIES		N/A	N/A	N/A	N/A	N/A	N/A
4. CONTRACTOR USE OF GOVERNMENT OWNED EQUIPMENT AND FACILITIES		N/A	N/A	N/A	N/A	N/A	N/A
5. STANDBY MAINTENANCE COST		N/A	N/A	N/A	N/A	N/A	N/A
6. OTHER COSTS		9,651	N/A	N/A	9,651		
7. SUBTOTAL (Sum of Lines 1 through 6)		32,815	21,138	22,300	76,253		
8. CONTRACT COST		241,872	183,807	183,807	609,486		
9. TOTAL CONTRACT OPERATIONS COST (Sum of Lines 7 and 8)		274,687	204,945	206,107	685,739		
GOVERNMENT OPERATIONS							
10. CIVILIAN PERSONNEL COSTS		240,272	218,997	231,040	690,309		
11. MATERIALS, SUPPLIES, UTILITIES AND OTHER SERVICES		34,299	29,381	29,381	93,061		
12. MAINTENANCE AND REPAIR		N/A	N/A	N/A	N/A	N/A	N/A
13. OVERHEAD COSTS		N/A	N/A	N/A	N/A	N/A	N/A
14. OTHER COSTS		N/A	N/A	N/A	N/A	N/A	N/A
15. SUBTOTAL (Sum of Lines 10 through 14)		274,571	248,378	260,421	783,370		
16. INSURANCE (Line 15 Multiplied by 0.003)		824	745	781	2,350		
17. OTHER INDIRECT COSTS (Line 15 Multiplied by 0.02)		5,491	4,968	5,208	15,667		
18. DEPRECIATION		N/A	N/A	N/A	N/A	N/A	N/A
19. INTEREST		N/A	N/A	N/A	N/A	N/A	N/A
20. SUBTOTAL (Sum of Lines 15 through 19)		280,886	254,091	266,410	801,387		
21. FEDERAL TAXES (Line 8 multiplied by 1.83%)		4,426	3,364	3,364	11,154		
22. TOTAL GOVERNMENT OPERATIONS COST (Sum of Lines 20 and 21)		285,312	257,455	269,774	812,541		
23. COST DIFFERENCES		10,625	52,510	63,667	126,802		
24. PERCENT DIFFERENCES		3.72%	20.40%	23.60%	15.61%		
REMARKS							
STUDY RESULT							
CONTRACT		CONVERT TO		REMAIN			
DATE		IN-HOUSE		CONTRACT SIGNATURES		IN-HOUSE	
PREPARED BY		APPROVED BY					

LINE 1. TRANSPORTATION

At all bases, this item was considered a wash item or the contractor would furnish the service.

LINE 2. CONTRACT ADMINISTRATION AND RELATED COSTS

At all bases, a full-time QAE was required for the administration of the Audiovisual Services contract. A GS-07 or GS-09 was projected to fill this position. A projected pay raise of 5.5% was used for 1 October 1979, 1 October 1980, and 1 October 1981. A required 8.44% Government contribution factor was added to the personnel costs.

LINE 3. GOVERNMENT-FURNISHED MATERIALS AND SUPPLIES

This item was considered a wash item.

LINE 4. CONTRACTOR USE OF GOVERNMENT-OWNED EQUIPMENT AND FACILITIES

This item was considered a wash item.

LINE 5. STANDBY MAINTENANCE COST

The facilities would be used by the contractor; therefore, this requirement is not applicable.

LINE 6. OTHER COSTS

The other costs identified were either for severance pay or for moving/relocation expense. They were non-recurring costs; therefore, they were only applied to the first year.

LINE 8. CONTRACT COST

The contract cost was the bid that each contractor bid.

LINE 10. CIVILIAN PERSONNEL COSTS

The civilian personnel costs were based on estimates of the number and grade of personnel needed to accomplish the SOW. Projected pay raises of 5.5% for the general schedule employees were projected on 1 October 1979, 1980, and 1981. The wage board employees' projected pay raises were based on the anniversary date at each respective base. A required Government contribution of 8.44% was applied to the personnel cost. Also, any overtime or other special personnel costs were applied in this item.

LINE 11. MATERIALS, SUPPLIES, UTILITIES AND OTHER SERVICES

This cost was based on the estimates of materials and supplies required by the Government to accomplish the work in the SOW.

LINE 12. MAINTENANCE AND REPAIR

Maintenance and repair costs at the bases consisted of contract maintenance of the equipment.

LINE 13. OVERHEAD COSTS

Overhead costs would not change if the service was accomplished in-house or by contract. Therefore, this item was considered not applicable.

LINE 14. OTHER COSTS

No other costs were identified in the cost comparisons.

LINE 18. DEPRECIATION

The facilities to accomplish the workload in-house would be provided to the contractor in a contract operation. Because the equipment would be used in either a contract operation or in-house operation, this area was deemed not applicable.

LINE 19. INTEREST

No new or additional capital investment by the Government was required solely for the purpose of an in-house operation. As a result, this area was not considered at the bases.

LINE 21. FEDERAL TAXES

The amount entered on Line 8, Contract Price, was multiplied by a tax cost factor of 1.83% as directed by HQ USAF, HQ MAC/XPMRS letter, 12 Jan 79, In-Service vs Contract Accomplishment of Audiovisual Services.

LINE 23. COST DIFFERENCES

This line was computed by subtracting total contract operations cost, Line 9, from total Government operations cost, Line 22.

Line 22 - Line 9 = Cost Differences, Line 23

LINE 24. PERCENT DIFFERENCES

This line was calculated by:

$$\frac{\text{Cost Differences}}{\text{Total Government Operations Cost}} \times 100 = \text{Percent Differences}$$

APPENDIX C
COST COMPARISON 1
McChord AFB

COST ANALYSIS WORKSHEET		INSTALLATION McChord AFB		ACTIVITY Audiovisual Services			
COST ELEMENTS		YEARS OF OPERATION					
		FIRST	SECOND	THIRD	3 YEAR TOTAL		
CONTRACT OPERATIONS							
1. TRANSPORTATION		N/A	N/A	N/A	N/A	N/A	N/A
2. CONTRACT ADMINISTRATION AND RELATED COSTS		23,543	22,232	23,455	69,230		
3. GOVERNMENT FURNISHED MATERIALS AND SUPPLIES		N/A	N/A	N/A	N/A	N/A	N/A
4. CONTRACTOR USE OF GOVERNMENT OWNED EQUIPMENT AND FACILITIES		N/A	N/A	N/A	N/A	N/A	N/A
5. STANDBY MAINTENANCE COST		N/A	N/A	N/A	N/A	N/A	N/A
6. OTHER COSTS		4,550	0	0	4,550		
7. SUBTOTAL (Sum of Lines 1 through 6)		28,093	22,232	23,455	73,780		
8. CONTRACT COST		190,460	170,844	182,245	543,549		
9. TOTAL CONTRACT OPERATIONS COST (Sum of Lines 7 and 8)		218,553	193,076	205,700	617,329		
GOVERNMENT OPERATIONS							
10. CIVILIAN PERSONNEL COSTS		195,637	184,627	194,889	575,153		
11. MATERIALS, SUPPLIES, UTILITIES AND OTHER SERVICES		22,240	19,063	19,063	60,366		
12. MAINTENANCE AND REPAIR		429	368	368	1,165		
13. OVERHEAD COSTS		N/A	N/A	N/A	N/A	N/A	N/A
14. OTHER COSTS		N/A	N/A	N/A	N/A	N/A	N/A
15. SUBTOTAL (Sum of Lines 10 through 14)		218,306	204,058	214,320	636,684		
16. INSURANCE (Line 15 Multiplied by 0.003)		655	612	643	1,910		
17. OTHER INDIRECT COSTS (Line 15 Multiplied by 0.02)		4,366	4,081	4,286	12,733		
18. DEPRECIATION		N/A	N/A	N/A	N/A	N/A	N/A
19. INTEREST		N/A	N/A	N/A	N/A	N/A	N/A
20. SUBTOTAL (Sum of Lines 15 through 19)		223,327	208,751	219,249	651,327		
21. FEDERAL TAXES (Line 8 multiplied by 1)		3,485	3,126	3,335	9,946		
22. TOTAL GOVERNMENT OPERATIONS COST (Sum of Lines 20 and 21)		226,812	211,877	222,584	661,273		
23. COST DIFFERENCES		8,259	18,801	16,884	43,944		
24. PERCENT DIFFERENCES		3.64%	8.87%	7.59%	6.65%		
REMARKS							
Cost Comparison 1							
STUDY RESULT							
CONVERT TO		CONTRACT		REMAIN			
DATE		IN-HOUSE		IN-HOUSE			
PREPARED BY		SIGNATURES		APPROVED BY			

LINE 1. TRANSPORTATION

Transportation is considered a wash item.

LINE 2. CONTRACT ADMINISTRATION AND RELATED COSTS

A full time QAE is required for the administration of the Audiovisual Services contract. A GS-9 (Step 4) is used to fill this position. Pay raises of 7.3% on 1 October 79 and 9.1% on 1 October 80 are used. A projected pay raise of 5.5% is used for 1 October 1981. The annual salary for a GS-9 in 1978 was \$17,513. A required 8.44% Government contribution factor is added to the personnel cost.

First two months:

$$\$17,513 \times 2/12 = \$2,918.83$$

Next 12 months:

$$\begin{aligned} \$17,513 \times 1.073 &= \$18,791.45 \\ &\underline{\hspace{1.5cm}} \\ & \$21,710.28 \end{aligned}$$

Second year:

$$\$18,791.45 \times 1.091 = \$20,501.47$$

Third year:

$$\$20,501.47 \times 1.055 = \$21,629.05$$

TOTAL COST	1st Year	2nd Year	3rd Year	TOTAL
Salary	\$21,710.28	\$20,501.47	\$21,629.05	\$63,840.80
8.44%	1,832.35	1,730.32	1,825.49	5,388.16
	<u>\$23,542.63</u>	<u>\$22,231.79</u>	<u>\$23,454.54</u>	<u>\$69,228.96</u>

LINE 3. GOVERNMENT-FURNISHED MATERIALS AND SUPPLIES

This item is considered a wash item.

LINE 4. CONTRACTOR USE OF GOVERNMENT-OWNED EQUIPMENT
AND FACILITIES

This item is considered a wash item.

LINE 5. STANDBY MAINTENANCE COST

The facilities will be used by the contractor; therefore, this requirement is not applicable.

LINE 6. OTHER COSTS

The cost identified in the original cost comparison is for possible severance pay. Since I was unable to obtain the status of the persons involved, the original cost comparison numbers are used. They are non-recurring costs; therefore, the \$4,550.40 is only applied to the first year.

LINE 8. CONTRACT COST

According to the contracting office at McChord AFB, the actual cost for the first year is \$190,460. The estimated cost for the second year is \$170,844. The third year is still in negotiation, but approximate cost is \$182,245.

LINE 10. CIVILIAN PERSONNEL COSTS

The number and grade of civilian personnel are based on the original cost comparison. The general schedule employees are given a pay raise of 7.3% on 1 October 79 and 9.1% on 1 October 80. A projected pay raise of 5.5% is used for 1 October 81. The wage board employees are given a pay raise of 7.3% on 1 November 79 and of 9.1% on 1 November 80. A projected pay raise of 5.5% is used for

1 November 81. A Government contribution of 8.44% is included.

First Year:

<u>Grade</u>	<u># Auth</u>	<u>Annual Rate</u>	<u>2 months</u>
GS-09	1	\$17,513	\$ 2,918.83
GS-07	1	14,316	2,386.00
GS-05	7	80,899	13,483.17
		<u>\$112,728</u>	<u>\$18,788.00</u>
		$\$112,728 \times 1.073 = \$120,957.14$	
			<u>\$139,745.14</u>

<u>Grade</u>	<u># Auth</u>	<u>Annual Rate</u>	<u>2 months</u>
WG-5	1	\$16,077.60	\$ 4,019.40
WG-3	1	<u>14,950.08</u>	<u>3,737.52</u>
		<u>\$31,027.68</u>	<u>\$ 7,756.92</u>
		$\$31,027.68 \times 1.073 \times 11/12 = \$30,518.31$	
			<u>\$38,275.23</u>

Total First Year:

$$\$139,745.14 + \$38,275.23 = \$178,020.37$$

Second Year:

$$\text{GS grades: } \$120,957.14 \times 1.091 = \$131,964.24$$

$$\text{WG grades: } (\$31,027.68 \times 1.073 = \$33,292.70)$$

$$\$33,292.70 \times 1/12 = \$ 2,774.39$$

$$\$33,292.70 \times 1.091 \times 11/12 = \$33,295.47$$

$$\underline{\$168,034.10}$$

Third Year:

$$\begin{aligned}\text{GS grades: } & \$131,964.24 \times 1.055 = \$139,222.27 \\ \text{WG grades: } & (\$33,292.70 \times 1.091 = \$36,322.34) \\ & \$36,322.34 \times 1/12 = \$ 3,026.86 \\ & \$36,322.34 \times 1.055 \times 11/12 = \$35,126.73 \\ & \underline{\hspace{1.5cm}} \\ & \$177,375.86\end{aligned}$$

Other costs are for known overtime workloads which is repetitive each year, as well as alert calls and Information Office support. The costs are based on a GS-05 (Step 4) that is paid time and a half. The number of hours in the first two months is 46 hours. After the first two months, the annual number of hours is 248 hours.

First Year:

$$\begin{aligned}& \$5.535 \times 46 \text{ hours} \times 1.5 = \$ 381.92 \\ & \$5.535 \times 1.073 \times 248 \times 1.5 = \$2,209.33 \\ & \underline{\hspace{1.5cm}} \\ & \$2,591.25\end{aligned}$$

Second Year:

$$\$2,209.33 \times 1.09 = \$2,410.38$$

Third Year:

$$\$2,410.38 \times 1.055 = \$2,542.95$$

Total Civilian Personnel Costs:

	<u>1st Year</u>	<u>2nd Year</u>	<u>3rd Year</u>
Personnel Cost	\$178,020.37	\$168,034.10	\$177,375.86
Govt Cont (8.44%)	15,024.92	14,182.08	14,970.52
Other Costs	2,591.25	2,410.38	2,542.95
	<u>\$195,636.54</u>	<u>\$184,626.56</u>	<u>\$194,889.33</u>

LINE 11. MATERIALS, SUPPLIES, UTILITIES AND OTHER SERVICES

Since the activity went contract operations, the estimates from the original cost comparison are used.

1st Year: \$22,240

2nd Year: \$19,063

3rd Year: \$19,063

LINE 12. MAINTENANCE AND REPAIR

The cost from the original cost comparison is used.

1st Year: \$429

2nd Year: \$368

3rd Year: \$368

LINE 13. OVFRHEAD COSTS

This item is considered a wash item.

LINE 14. OTHER COSTS

No other costs are identified for inclusion in this cost comparison.

LINE 15. SUBTOTAL

<u>Line</u>	<u>1st Year</u>	<u>2nd Year</u>	<u>3rd Year</u>	<u>TOTAL</u>
10	\$195,637	\$184,627	\$194,889	\$575,153
11	22,240	19,063	19,063	60,366
12	429	368	368	1,165
13	N/A	N/A	N/A	N/A
14	N/A	N/A	N/A	N/A
15	<u>\$218,306</u>	<u>\$204,058</u>	<u>\$214,320</u>	<u>\$636,684</u>

LINE 16. INSURANCE

This cost is calculated by multiplying Line 15 by the factor 0.003.

1st Year:	\$218,306 x 0.003	=	\$654.92
2nd Year:	\$204,058 x 0.003	=	\$612.17
3rd Year:	\$214,320 x 0.003	=	\$642.96
			<hr/>
			\$1,910.05

LINE 17. OTHER DIRECT COSTS

This cost is calculated by multiplying the standard cost factor, 0.02, to Line 15.

1st Year:	\$218,306 x .02	=	\$4,366.12
2nd Year:	\$204,058 x .02	=	\$4,081.16
3rd Year:	\$214,320 x .02	=	\$4,286.40
			<hr/>
			\$12,733.68

LINE 18. DEPRECIATION

This item is considered a wash item.

LINE 19. INTEREST

This item is considered a wash item.

LINE 20. FEDERAL TAXES

Multiply the tax factor for Audiovisual Services of 1.83% to the contract cost, Line 8.

1st Year: \$190,460 x .0183 = \$3,485.42

2nd Year: \$170,844 x .0183 = \$3,126.45

3rd Year: \$182,245 x .0183 = \$3,335.08

LINE 23. COST DIFFERENCES

	1st Year	2nd Year	3rd Year	TOTAL
In-House	\$226,812	\$211,877	\$222,584	\$661,273
- Line 9	218,553	193,076	205,700	617,329
	<u>\$ 8,259</u>	<u>\$ 18,801</u>	<u>\$ 16,884</u>	<u>\$ 43,944</u>

LINE 24. PERCENT DIFFERENCES

	1st Year	2nd Year	3rd Year	TOTAL
Line 23	\$ 8,259	\$ 18,801	\$ 16,884	\$ 43,944
÷ Line 22	226,812	211,877	222,584	661,273
	<u>3.64%</u>	<u>8.87%</u>	<u>7.59%</u>	<u>6.65%</u>

APPENDIX D
COST COMPARISON 2
McChord AFB

MOCHORD AFB WA

COMPARATIVE COST OF IN-HOUSE AND CONTRACTING-OUT
PERFORMANCE OF BAVSC

(Date)					
LINE #	COST ELEMENT	FIRST YEAR	SECOND YEAR	THIRD YEAR	TOTAL
IN-HOUSE PERFORMANCE (CHAPTER III)					
1.	DIRECT MATERIAL	22,240	19,063	19,063	60,366
2.	MATERIAL OVERHEAD	N/A	N/A	N/A	N/A
3.	DIRECT LABOR	178,020	168,034	168,034	514,088
4.	FRINGE BENEFITS ON DIRECT LABOR	46,285	43,689	43,689	133,663
5.	OPERATIONS OVERHEAD	5,360	4,984	4,984	15,328
6.	OTHER DIRECT COSTS	2,603	2,420	2,420	7,443
7.	GENERAL AND ADMINISTRATIVE EXPENSE	N/A	N/A	N/A	N/A
8.	INFLATION	N/A	763	10,767	11,530
9.	TOTAL	254,508	238,953	248,957	742,418
PERFORMANCE BY CONTRACTING-OUT (CHAPTER IV)					
10.	CONTRACT PRICE	190,460	170,844	182,245	543,549
11.	TRANSPORTATION	N/A	N/A	N/A	N/A
12.	CONTRACT ADMINISTRATION	34,973	32,665	33,121	100,759
13.	GOVERNMENT-FURNISHED PROPERTY	N/A	N/A	N/A	N/A
14.	STANDBY MAINTENANCE	N/A	N/A	N/A	N/A
15.	OTHER COSTS	N/A	N/A	N/A	N/A
16.	GENERAL AND ADMINISTRATIVE EXPENSE	N/A	N/A	N/A	N/A
17.	TOTAL	225,433	203,509	215,366	644,308

LINE #	COST ELEMENT	FIRST YEAR	SECOND YEAR	THIRD YEAR	TOTAL
<u>OTHER CONSIDERATIONS (CHAPTER V)</u>					
<u>ADDITIONS AND (DEDUCTIONS) TO IN-HOUSE PERFORMANCE</u>					
ADD:					
18.	COST OF CAPITAL	N/A	N/A	N/A	N/A
19.	ONE-TIME NEW-START COSTS	N/A	N/A	N/A	N/A
20.	OTHER COSTS	N/A	N/A	N/A	N/A
DEDUCT:					
21.	OTHER COSTS	(N/A)	(N/A)	(N/A)	(N/A)
22.	TOTAL	N/A	N/A	N/A	N/A
<u>ADDITIONS AND (DEDUCTIONS) TO CONTRACTING-OUT PERFORMANCE</u>					
ADD:					
23.	COST OF CAPITAL ON GOVT-FURNISHED FACILITIES	N/A	N/A	N/A	N/A
24.	UTILIZATION OF GOVERNMENT CAPACITY	N/A	N/A	N/A	N/A
25.	ONE-TIME CONVERSION COSTS	1,517	1,517	1,517	4,551
26.	OTHER COSTS	N/A	N/A	N/A	N/A
DEDUCT:					
27.	FEDERAL INCOME TAXES	(1,905)	(1,708)	(1,822)	(5,435)
28.	NET PROCEEDS FROM DISPOSAL OF ASSETS	(N/A)	(N/A)	(N/A)	(N/A)
29.	(ANNUAL VALUE)	(N/A)	(N/A)	(N/A)	(N/A)
30.	TOTAL	(388)	(191)	(305)	(884)
<u>MINIMUM COST DIFFERENTIAL (CHAPTER VI)</u>					
31.	NEW-START	N/A	N/A	N/A	N/A
32.	CONVERSION	22,431	21,172	22,062	65,665
<u>SUMMARY</u>					
33.	ADJUSTED COST OF IN-HOUSE PERFORMANCE (LINE 9 ± LINE 22 + 31)	254,508	238,953	248,957	742,418
34.	ADJUSTED COST OF CONTRACTING-OUT PERFORMANCE (LINE 17 ± LINE 30 + 32)	247,476	224,490	237,123	709,089
35.	COST OF IN-HOUSE OVER (UNDER) COST OF CONTRACTING-OUT PERFORMANCE (LINE 33 - LINE 34)	7,032	14,463	11,834	33,329

LINE 1. DIRECT MATERIAL

Since the activity went contract operations, the estimates from the original cost comparison are used.

1st Year: \$22,240

2nd Year: \$19,063

3rd Year: \$19,063

LINE 2. MATERIAL OVERHEAD

This item would have been a wash item in the original cost comparison; therefore, it is considered a wash item here.

LINE 3. DIRECT LABOR

The number of grade of civilian personnel are based on the original cost comparison. The direct labor cost calculations are in Cost Comparison 1, Appendix C. The Cost Comparison Handbook projects inflation in line 8. Therefore, for the third year the 5.5% projected pay raise is not applied.

1st Year: \$178,020.37

2nd Year: \$168,034.10

3rd Year: \$168,034.10

LINE 4. FRINGE BENEFITS ON DIRECT LABOR

The cost factor of 26% is applied to the direct labor costs.

1st Year: \$178,020.37 x .26 = \$46,285.30

2nd Year: \$168,034.10 x .26 = \$43,688.87

3rd Year: \$168,034.10 x .26 = \$43,688.87

\$133,663.04

LINE 5. OPERATIONS OVERHEAD

The costs identified in this area are maintenance and repair and other indirect costs. The maintenance and repair costs are those used in the original cost comparison. The other indirect costs are calculated by multiplying the factor 0.02 to the sum of direct material, direct labor and fringe benefits on direct labor.

Other indirect costs:

1st Year: $(\$22,240 + \$178,020 + \$46,285) \times 0.02 = \$4,930.90$

2nd Year: $(\$19,063 + \$168,034 + \$43,689) \times 0.02 = \$4,615.72$

3rd Year: $(\$19,063 + \$168,034 + \$43,689) \times 0.02 = \$4,615.72$

	1st Year	2nd Year	3rd Year	TOTAL
Indirect Costs	\$4,931	\$4,616	\$4,616	\$14,163
Maint & Repair	429	368	368	1,165
	<u>\$5,360</u>	<u>\$4,984</u>	<u>\$4,984</u>	<u>\$15,328</u>

LINE 6. OTHER DIRECT COSTS

The cost of overtime is considered part of other direct costs. The calculations are shown in Appendix C, line 10, as other costs.

1st Year: \$2,591

2nd Year: \$2,410

3rd Year: \$2,410

LINE 7. GENERAL AND ADMINISTRATIVE EXPENSE

This item is considered a wash item.

LINE 8. INFLATION

The Cost Comparison Handbook establishes a 4% factor to be applied to all the preceding costs for the second year, and an 8.2% inflation factor for the third year. Since inflation has been applied to the direct labor and fringe benefits for the second year, inflation is applied only to material overhead. For the third year, the factor of 8.2% is applied to the direct material costs. Only a factor of 4.2% is applied to the remaining cost because inflation is added into the second year costs.

2nd Year: \$19,063 x .04 = \$762.52

3rd Year: \$19,063 x .082 = \$1,563.17

(\$168,034+\$43,689+\$4,984+\$2,420)x.042 = \$9,203.33
\$10,766.50

LINE 10. CONTRACT PRICE

This cost is obtained from the contracting office at McChord AFB. The actual cost for the first year is \$190,460. The estimated cost for the second and third year is \$170,844 and \$182,245.

LINE 11. TRANSPORTATION

This item is considered a wash item.

LINE 12. CONTRACT ADMINISTRATION

Contract administration costs are normally computed by multiplying .04 by the contract price. However, the requirement of a QAE is in addition to the normal cost. The contract

administration cost is calculated by adding the cost of the QAE to 4% of the contract price. The salary of the QAE is found in Appendix C, line 2. The third year QAE salary is the same as the second year.

1st Year: $(\$190,460 \times .04) + (\$21,710 \times 1.26) = \$34,973.00$

2nd Year: $(\$170,844 \times .04) + (\$20,501 \times 1.26) = \$32,665.02$

3rd Year: $(\$182,245 \times .04) + (\$20,501 \times 1.26) = \$33,121.06$

LINE 13. GOVERNMENT-FURNISHED PROPERTY

This item is considered a wash item.

LINE 14. STANDBY MAINTENANCE

The facilities will be used by the contractor; therefore, this requirement is not applicable.

LINE 15. OTHER COSTS

This item is considered a wash item for this study.

LINE 16. GENERAL AND ADMINISTRATIVE EXPENSE

This item is considered a wash item.

LINE 18 THROUGH LINE 24

These items were not considered in the original cost comparison. In order to make a comparison between Cost Comparisons 1 and 2, these lines are considered not applicable.

LINE 25. ONE-TIME CONVERSION COSTS

These costs are the cost associated with the possible severance of employees if the service goes into a contract service. The cost from the original cost comparison of \$4,550.40 is used. According to the Cost Comparison Handbook, this cost is divided by three and the result applied in the three years.

$$\frac{\$4,550.40}{3} = \$1,516.80$$

LINE 26. OTHER COSTS

No other costs are identified for addition to this cost comparison.

LINE 27. FEDERAL INCOME TAXES

According to Appendix 1, Cost Comparison Handbook, the tax rate is 1%. This is applied to the contract price, line 10.

1st Year: \$190,460 x .01 = \$1,904.60

2nd Year: \$170,844 x .01 = \$1,708.44

3rd Year: \$182,245 x .01 = \$1,822.45

LINE 28. NET PROCEEDS FROM DISPOSAL OF ASSETS

Because the Government equipment will be furnished to the contractor, this line is not applicable.

LINE 29. OTHER COSTS

No other costs are identified for deductions in this cost comparison.

LINE 32. CONVERSION

A cost margin equal to 10% of the in-house personnel-related costs is added to the cost comparison.

1st Year: $(\$178,020 + \$46,285) \times .10 = \$22,430.50$

2nd Year: $(\$168,034 + \$43,689) \times .10 = \$21,172.30$

3rd Year: $(\$168,034 + \$43,689) \times 1.04 \times .10$
 $= \$22,019.19$

APPENDIX E
COST COMPARISON 1
Pope AFB

COST ANALYSIS WORKSHEET		INSTALLATION Pope AFB NC	ACTIVITY Audiovisual Services		
COST ELEMENTS		YEARS OF OPERATION			
		FIRST	SECOND	THIRD	3 YEAR TOTAL
CONTRACT OPERATIONS					
1. TRANSPORTATION		N/A	N/A	N/A	N/A
2. CONTRACT ADMINISTRATION AND RELATED COSTS		23,543	22,232	23,455	69,230
3. GOVERNMENT FURNISHED MATERIALS AND SUPPLIES		N/A	N/A	N/A	N/A
4. CONTRACTOR USE OF GOVERNMENT OWNED EQUIPMENT AND FACILITIES		N/A	N/A	N/A	N/A
5. STANDBY MAINTENANCE COST		N/A	N/A	N/A	N/A
6. OTHER COSTS		9,651	-0-	-0-	9,651
7. SUBTOTAL (Sum of Lines 1 through 6)		33,194	22,232	23,455	78,881
8. CONTRACT COST		230,837	196,392	196,392	623,621
9. TOTAL CONTRACT OPERATIONS COST (Sum of Lines 7 and 8)		264,031	218,624	219,847	702,502
GOVERNMENT OPERATIONS					
10. CIVILIAN PERSONNEL COSTS		243,724	229,128	241,730	714,582
11. MATERIALS, SUPPLIES, UTILITIES AND OTHER SERVICES		34,209	29,381	29,381	93,061
12. MAINTENANCE AND REPAIR		N/A	N/A	N/A	N/A
13. OVERHEAD COSTS		N/A	N/A	N/A	N/A
14. OTHER COSTS		N/A	N/A	N/A	N/A
15. SUBTOTAL (Sum of Lines 10 through 14)		278,023	258,509	271,111	807,643
16. INSURANCE (Line 15 Multiplied by 0.003)		834	776	813	2,423
17. OTHER INDIRECT COSTS (Line 15 Multiplied by 0.02)		5,560	5,170	5,422	16,152
18. DEPRECIATION		N/A	N/A	N/A	N/A
19. INTEREST		N/A	N/A	N/A	N/A
20. SUBTOTAL (Sum of Lines 15 through 19)		284,417	264,455	277,346	826,218
21. FEDERAL TAXES (Line 8 multiplied by 1)		4,224	3,594	3,594	11,412
22. TOTAL GOVERNMENT OPERATIONS COST (Sum of Lines 20 and 21)		288,641	268,049	280,940	837,630
REMARKS					
23. COST DIFFERENCES		24,610	49,425	61,093	135,128
24. PERCENT DIFFERENCES		8.5	18.4	21.7	16.1
Cost Comparison 1					
STUDY RESULT					
CONVERT TO		CONTRACT SIGNATURES		REMAIN	
DATE	IN-HOUSE	IN-HOUSE		IN-HOUSE	
PREPARED BY		APPROVED BY			

LINE 1. TRANSPORTATION

Transportation is considered a wash item.

LINE 2. CONTRACT ADMINISTRATION AND RELATED COSTS

A full-time QAE is required for the administration of the Audiovisual Service contract. A GS-09 (Step 4) is used to fill this position. A pay raise of 7.3% is applied on 1 October 1979. On 1 October 1980 a 9.1% pay raise is awarded. For 1 October 1981 a 5.5% projected pay raise is used. The annual salary for a GS-09 in 1978 was \$17,513. A required 8.44% Government contribution factor is added to the personnel cost.

1st 2 Months: \$17,513 x 2/12 = \$ 2,918.83

Next 12 Months: \$17,513 x 1.073 = \$18,791.45
\$21,710.28

2nd Year: \$18,791.45 x 1.091 = \$20,501.47

3rd Year: \$20,501.47 x 1.055 = \$21,629.05

Total Cost	1st Year	2nd Year	3rd Year	TOTAL
Salary	\$21,710.28	\$20,501.47	\$21,629.05	\$63,840.80
8.44%	<u>1,832.35</u>	<u>1,730.32</u>	<u>1,825.49</u>	<u>5,388.16</u>
	\$23,542.63	\$22,231.79	\$23,454.54	\$69,228.96

LINE 3. GOVERNMENT FURNISHED MATERIALS AND SUPPLIES

Contractor will furnish all materials IAW the RFTP.

LINE 4. CONTRACTOR USE OF GOVERNMENT OWNED EQUIPMENT AND FACILITIES

This item is a wash item.

LINE 5. STANDBY MAINTENANCE COST

The facilities will be used by the contractor; therefore, this requirement is not applicable (N/A).

LINE 6. OTHER COSTS

The cost identified in the original cost comparison is for possible severance pay and relocation expenses totaling \$9,651.40. Since I was unable to obtain the status of the persons involved, the original cost comparison numbers are used. They are non-recurring costs; therefore, the \$9,651.40 is only applied to the first year.

LINE 8. CONTRACT COST

According to the Contracting Office at Pope AFB, the actual cost for the first year is \$230,837. A different contractor is obtained for the second year. The estimated cost for the second year is \$196,392. The same cost is used for the third year.

	1st Year	2nd Year	3rd Year	TOTAL
Contract Cost	\$230,837	\$196,392	\$196,392	\$623,621

LINE 10. CIVILIAN PERSONNEL COSTS

The number and grade of civilian personnel are based on the original cost comparison. The general schedule employees are given a pay raise of 7.3% on 1 October 79 and 9.1% on 1 October 1980. A projected pay raise of 5.5% is used for 1 October 1981. The wage board employees are

given a pay raise of 7.3% on 1 July 1980. A projected pay raise of 5.5% is used on 1 July 1981 and 1 July 1982. A Government contribution factor of 8.44% is included.

FIRST YEAR

Grade	# Auth	Annual Rate	2 Months
GS-9	1	\$17,513	\$ 2,918.83
GS-7	2	28,632	4,772.00
GS-5	7	80,899	13,483.17
GS-3	1	9,203	1,533.83
		<u>\$136,247</u>	<u>\$22,707.83</u>
		$\$136,247 \times 1.073 = \$146,193.03$	
			<u>\$168,900.86</u>

Grade	# Auth	Annual Rate
WG-10	1	\$15,242.40
WG-07	1	12,997.80
WG-05	1	11,477.74
		<u>\$39,717.94</u>

$$\$39,717.94 \times 11/12 = \$36,408.11$$

$$\$39,717.94 \times 1.073 \times 3/12 = \$10,654.34$$

$$\underline{\$47,062.45}$$

$$\text{Total First Year: } \$168,900.86 + \$47,062.45 = \$215,963.31.$$

SECOND YEAR

GS Grades: \$146,193.03 x 1.093 = \$159,788.98

WG Grades:

(\$39,717.94 x 1.073 = \$42,617.35)

\$42,617.35 x 9/12 = \$ 31,963.01

\$42,617.35 x 1.055 x 3/12 = \$ 11,240.33

\$202,992.32

THIRD YEAR

GS Grades: \$159,788.98 x 1.055 = \$168,577.37

WG Grades:

(\$42,617.35 x 1.055 = \$44,961.30)

\$44,961.30 x 9/12 = \$ 33,720.98

\$44,961.30 x 1.055 x 3/12 = \$ 11,858.54

\$214,156.89

Other costs are for overtime of the still photographer and the alert photographer. Either position would be filled by either a GS-07 or one of the four GS-05s. Therefore, the average hourly rate is

$$\frac{\$6.856(\text{GS-7}) + \$5.535(\text{GS-05}) \times 4}{5} = \$5.80$$

There is a total of 150 call-backs for the alert photographer at two hours of overtime (1.5) and four call-backs at three hours overtime. Also, there are two call-backs of two hours paid at holiday pay (1.75), and one call-back of three hours

paid at holiday pay. There is a total of 514 hours at over-
time pay and eight hours at holiday pay. A Graphics Special-
ist is estimated to work 40 hours of overtime a year. This
position is filled by either a GS-07 or one of the three
GS-05s.

$$\frac{\$6.856(\text{GS-07}) + \$5.535(\text{GS-05}) \times 3}{4} = \$5.87$$

First 2 Months

150 CB x 2 hrs x \$5.80 x 1.50 x 2/12	=	\$435.00
2 CB x 2 hrs x \$5.80 x 1.75 x 2/12	=	6.77
4 CB x 3 hrs x \$5.80 x 1.50 x 2/12	=	17.40
1 CB x 3 hrs x \$5.80 x 1.75 x 2/12	=	5.08
		<hr/> \$464.25
514 hours x \$5.80 x 1.5 x 2/12	=	\$745.30
8 hours x \$5.80 x 1.75 x 2/12		13.53
40 hours x \$4.87 x 1.5 x 2/12		58.70
		<hr/> \$817.53

Next 12 Months

150 CB x 2 hrs x \$5.80 x 1.50 x 1.073	=	\$2,800.53
2 CB x 2 hrs x \$5.80 x 1.75 x 1.073	=	43.56
4 CB x 3 hrs x \$5.80 x 1.50 x 1.073	=	112.02
1 CB x 3 hrs x \$5.80 x 1.75 x 1.073	=	32.67
514 hours x \$5.80 x 1.5 x 1.073	=	4,798.24
8 hours x \$5.80 x 1.75 x 1.073	=	87.13
40 hours x \$5.87 x 1.50 x 1.073	=	377.91
		<hr/> \$8,252.06

First Year Total: \$464.25 + \$817.53 + \$8,252.06 = \$9,533.84

Second Year: \$8,252.06 x 1.091 = \$9,003.00

Third Year: \$9,003.00 x 1.055 = \$9,498.17

TOTAL CIVILIAN PERSONNEL COSTS

	1st Year	2nd Year	3rd Year
Personnel Costs	\$215,963.31	\$202,992.32	\$214,156.89
Govt Cont (.0844)	18,227.30	17,132.55	18,074.84
Other Costs	9,533.84	9,003.00	9,498.17
	<u>\$243,724.45</u>	<u>\$229,127.87</u>	<u>\$241,729.90</u>

LINE 11. MATERIALS, SUPPLIES, UTILITIES AND OTHER SERVICES

Since this activity went contract service, the estimates from the original Cost Comparison are used.

1st Year: \$34,299

2nd Year: \$29,381

3rd Year: \$29,381

\$93,061

LINE 12. MAINTENANCE AND REPAIR

This item is considered a wash item.

LINE 13. OVERHEAD CCSTS

This item is considered a wash item.

LINE 14. OTHER COSTS

No other costs are identified for inclusion in this cost comparison.

LINE 15. SUBTOTAL

Line	1st Year	2nd Year	3rd Year	Total
10	\$243,724	\$229,128	\$241,730	\$741,582
11	34,299	29,381	29,381	93,061
12	N/A	N/A	N/A	N/A
13	N/A	N/A	N/A	N/A
14	N/A	N/A	N/A	N/A
15	<u>\$278,023</u>	<u>\$258,509</u>	<u>\$271,111</u>	<u>\$807,643</u>

LINE 16. INSURANCE

This cost is calculated by multiplying Line 15 by the factor 0.003.

1st Year: \$278,023 x .003 = \$834.07
2nd Year: \$258,509 x .003 = \$775.53
3rd Year: \$271,111 x .003 = \$813.33
\$2,422.93

LINE 17. OTHER INDIRECT COSTS

This cost is calculated by multiplying the standard cost factor, 0.02, to Line 15.

1st Year: \$278,023 x .02 = \$5,560.46
2nd Year: \$258,509 x .02 = \$5,170.18
3rd Year: \$271,111 x .02 = \$5,422.22
\$16,152.86

LINE 18. DEPRECIATION

This item is considered a wash item.

LINE 19. INTEREST

New equipment is not required to be purchased for an in-house operation.

LINE 21. FEDERAL TAXES

The tax cost factor of 1.83% is obtained from HQ MAC/XPMRS letter, paragraph 2e, 12 Jan 79, In-Service vs Contract Accomplishment of Audiovisual Services. This is multiplied to the cost in Line 8.

1st Year:	\$230,837	x 0.0183	=	\$4,224.32
2nd Year:	\$196,392	x 0.0183	=	\$3,593.97
3rd Year:	\$196,392	x 0.0183	=	<u>\$3,593.97</u>
				\$11,412.27

LINE 23. COST DIFFERENCES

	1st Year	2nd Year	3rd Year	Total
In-House	\$288,641	\$268,049	\$280,940	\$837,630
Contract Cost	<u>\$264,031</u>	<u>\$218,624</u>	<u>\$219,847</u>	<u>\$702,502</u>
	\$ 24,610	\$ 49,425	\$ 61,093	\$135,128

LINE 24. PERCENT DIFFERENCES

	1st Year	2nd Year	3rd Year	Total
Cost Differences	\$ 24,610	\$ 49,425	\$ 61,093	\$135,128
÷ Line 22	<u>\$288,641</u>	<u>\$268,049</u>	<u>\$280,940</u>	<u>\$837,630</u>
	8.5%	18.4%	21.7%	16.1%

APPENDIX F
COST COMPARISON 2
Pope AFB

POPE AFB SC

COMPARATIVE COST OF IN-HOUSE AND CONTRACTING-OUT
PERFORMANCE OF BAVSC

(Date)					
LINE #	COST ELEMENT	FIRST YEAR	SECOND YEAR	THIRD YEAR	TOTAL
IN-HOUSE PERFORMANCE (CHAPTER III)					
1.	DIRECT MATERIAL	34,299	29,381	29,381	93,061
2.	MATERIAL OVERHEAD	N/A	N/A	N/A	N/A
3.	DIRECT LABOR	215,963	202,992	202,922	621,947
4.	FRINGE BENEFITS ON DIRECT LABOR	56,150	52,778	52,778	161,706
5.	OPERATIONS OVERHEAD	6,312	5,874	5,874	18,060
6.	OTHER DIRECT COSTS	9,534	9,003	9,003	27,540
7.	GENERAL AND ADMINISTRATIVE EXPENSE	N/A	N/A	N/A	N/A
8.	INFLATION	N/A	1,175	13,235	14,410
9.	TOTAL	322,258	301,203	313,263	936,724
PERFORMANCE BY CONTRACTING-OUT (CHAPTER IV)					
10.	CONTRACT PRICE	230,837	196,392	196,392	623,621
11.	TRANSPORTATION	N/A	N/A	N/A	N/A
12.	CONTRACT ADMINISTRATION	36,588	33,687	33,687	103,962
13.	GOVERNMENT-FURNISHED PROPERTY	N/A	N/A	N/A	N/A
14.	STANDBY MAINTENANCE	N/A	N/A	N/A	N/A
15.	OTHER COSTS	N/A	N/A	N/A	N/A
16.	GENERAL AND ADMINISTRATIVE EXPENSE	N/A	N/A	N/A	N/A
17.	TOTAL	267,425	230,079	230,079	727,583

LINE #	COST ELEMENT	FIRST YEAR	SECOND YEAR	THIRD YEAR	TOTAL
<u>OTHER CONSIDERATIONS (CHAPTER V)</u>					
<u>ADDITIONS AND (DEDUCTIONS) TO IN-HOUSE PERFORMANCE</u>					
ADD:					
18.	COST OF CAPITAL	N/A	N/A	N/A	N/A
19.	ONE-TIME NEW-START COSTS	N/A	N/A	N/A	N/A
20.	OTHER COSTS	N/A	N/A	N/A	N/A
DEDUCT:					
21.	OTHER COSTS	(N/A)	(N/A)	(N/A)	(N/A)
22.	TOTAL	N/A	N/A	N/A	N/A
<u>ADDITIONS AND (DEDUCTIONS) TO CONTRACTING-OUT PERFORMANCE</u>					
ADD:					
23.	COST OF CAPITAL ON GOVT-FURNISHED FACILITIES	N/A	N/A	N/A	N/A
24.	UTILIZATION OF GOVERNMENT CAPACITY	N/A	N/A	N/A	N/A
25.	ONE-TIME CONVERSION COSTS	3,217	3,217	3,217	9,651
26.	OTHER COSTS	N/A	N/A	N/A	N/A
DEDUCT:					
27.	FEDERAL INCOME TAXES	(2,308)	(1,964)	(1,964)	(6,236)
28.	NET PROCEEDS FROM DISPOSAL OF ASSETS	(N/A)	(N/A)	(N/A)	(N/A)
28.	(ANNUAL VALUE)	(N/A)	(N/A)	(N/A)	(N/A)
29.	OTHER COSTS	(N/A)	(N/A)	(N/A)	(N/A)
30.	TOTAL	909	1,253	1,253	3,415
<u>MINIMUM COST DIFFERENTIAL (CHAPTER VI)</u>					
31.	NEW-START	N/A	N/A	N/A	N/A
32.	CONVERSION	27,211	25,577	26,600	79,388
<u>SUMMARY</u>					
33.	ADJUSTED COST OF IN-HOUSE PERFORMANCE (LINE 9 + LINE 22 + 31)	322,258	301,203	313,263	936,724
34.	ADJUSTED COST OF CONTRACTING-OUT PERFORMANCE (LINE 17 + LINE 30 + 32)	295,545	256,909	257,932	810,386
35.	COST OF IN-HOUSE OVER (UNDER) COST OF CONTRACTING-OUT PERFORMANCE (LINE 33 - LINE 34)	26,713	44,294	55,331	126,338

LINE 1. DIRECT MATERIAL

Since the activity went contract operations, the estimates from the original cost comparison were used.

1st Year: \$34,299

2nd Year: \$29,381

3rd Year: \$29,381

LINE 2. MATERIAL OVERHEAD

This item was a wash item in the original cost comparison; therefore, it is considered a wash item here.

LINE 3. DIRECT LABOR

The number and grade of civilian personnel are based on the original cost comparison. The direct labor cost calculations are in Cost Comparison 1, Appendix E. Since inflation is calculated in Line 8, the 5.5% projected pay raise is not applied to the third year.

1st Year: \$215,963.31

2nd Year: \$202,992.32

3rd Year: \$202,992.32

LINE 4. FRINGE BENEFITS ON DIRECT LABOR

The cost factor of 26% is applied to the direct labor cost:

1st Year: \$215,963.31 x .26 = \$56,150.46

2nd Year: \$202,992.32 x .26 = \$52,778.00

3rd Year: \$202,992.32 x .26 = \$52,778.00

LINE 5. OPERATIONS OVERHEAD

The costs identified in this area are maintenance and repair and other indirect costs. The maintenance and repair costs are those identified in the original cost comparison. The other indirect costs are calculated by multiplying the factor 0.02 to the sum of direct material, direct labor and fringe benefits on direct labor.

1st Year: $(\$34,299 + \$215,963 + \$56,150) \times 0.02 = \$6,128.24$

2nd Year: $(\$29,381 + \$202,992 + \$52,778) \times 0.02 = \$5,703.02$

3rd Year: $(\$29,381 + \$202,992 + \$52,778) \times 0.02 = \$5,703.02$

	1st Year	2nd Year	3rd Year	Total
Indirect Costs	\$ 6,128.24	\$ 5,703.02	\$ 5,703.02	\$17,534.28
Maint & Repair	184.00	171.00	171.00	526.00
	<u>\$ 6,312.24</u>	<u>\$ 5,874.02</u>	<u>\$ 5,874.02</u>	<u>\$18,060.28</u>

LINE 6. OTHER DIRECT COSTS

The cost of overtime is considered part of other direct costs. The calculations are shown in Appendix E, Line 10 as other costs. The third year is the same as the second year.

1st Year: \$9,533.84

2nd Year: \$9,003.00

3rd Year: \$9,003.00

LINE 7. GENERAL AND ADMINISTRATIVE EXPENSE

This item is considered a wash item.

LINE 8. INFLATION

The Cost Comparison Handbook establishes a 4% inflation factor to be applied to all the preceding costs for the second year and an 8.2% inflation factor for the third year. Since inflation has been applied to the direct labor and fringe benefits for the second year, inflation is applied only to

material overhead. For the third year, the factor of 8.2% is applied to the direct material cost. Only a factor of 4% is applied to the remaining cost because inflation is added into the second year costs.

2nd Year: $\$29,381 \times .04 = \$1,175.24$

3rd Year: $\$29,381 \times .082 = \$2,409.24$

$(\$202,992 + \$52,778 + \$5,874 + \$9,003) \times .04 = \underline{\$10,825.88}$
 $\$13,235.12$

LINE 10. CONTRACT PRICE

This cost is obtained from the contracting office at Pope AFB. The actual cost for the first year is \$230,837. The estimated cost for the second and third year is \$196,392.

LINE 11. TRANSPORTATION

This item is considered a wash item.

LINE 12. CONTRACT ADMINISTRATION

Contract administration costs are normally computed by multiplying .04 to the contract price. However, the requirement of a QAE is in addition to the normal cost. The contract administration cost is calculated by adding the cost of the QAE to 4% of the contract price. The salary of the QAE is found in Appendix E, Line 2. The third year QAE salary is the same as the second year.

1st Year: $(\$230,837 \times .04) + (\$21,710 \times 1.26) = \$36,588.08$

2nd Year: $(\$196,392 \times .04) + (\$20,501 \times 1.26) = \$33,686.94$

3rd Year: $(\$196,392 \times .04) + (\$20,501 \times 1.26) = \$33,686.94$

LINE 13. GOVERNMENT-FURNISHED PROPERTY

This item is considered a wash item.

LINE 14. STANDBY MAINTENANCE

The facilities will be used by the contractor; therefore, this requirement is not applicable.

LINE 15. OTHER COSTS

No other costs are identified for addition to this cost comparison.

LINE 16. GENERAL AND ADMINISTRATION EXPENSE

This item is a wash item.

LINE 18 THROUGH LINE 24

These items were not considered in the original cost comparison. In order to make a comparison between Cost Comparison 1 and 2, these items are considered not applicable.

LINE 25. ONE-TIME CONVERSION COSTS

These costs are for possible severance pay and relocation expenses if conversion to a contract service occurs. Since I was unable to obtain the status of the persons involved, the original cost comparison cost of \$9,651.40 is used. According to the Cost Comparison Handbook, this cost is divided by three years and the result applied in the three years.

$$\$9,651.40/3 = \$3,217$$

LINE 26. OTHER COSTS

No other costs are identified for addition to this cost comparison.

LINE 27. FEDERAL INCOME TAXES

According to Appendix 1 of the Cost Comparison Handbook, the tax rate is 1%. This is applied to the contract price, Line 10.

1st Year: $\$230,837 \times .01 = \$2,308.37$

2nd Year: $\$196,392 \times .01 = \$1,963.92$

3rd Year: $\$196,392 \times .01 = \$1,963.92$

LINE 28. NET PROCEEDS FROM DISPOSAL OF ASSETS

Because the Government equipment will be furnished to the contractor, this line is not applicable.

LINE 29. OTHER COSTS

No other costs are identified for deduction in this cost comparison.

LINE 32. CONVERSION

A cost margin equal to 10% of the in-house personnel-related cost is added to the cost comparison.

1st Year: $(\$215,963 + \$56,150) \times .10 = \$27,211.30$

2nd Year: $(\$202,992 + \$52,778) \times .10 = \$25,577.00$

3rd Year: $(\$202,992 + \$52,778) \times 1.04 \times .10 = \$26,600.08$

APPENDIX G
COST COMPARISON 1
Travis AFB

COST ANALYSIS WORKSHEET		INSTALLATION Travis AFB CA		ACTIVITY Base Audiovisual Services			
COST ELEMENTS		YEARS OF OPERATION					
		FIRST	SECOND	THIRD	3 YEAR TOTAL		
CONTRACT OPERATIONS							
1. TRANSPORTATION		N/A	N/A	N/A	N/A	N/A	N/A
2. CONTRACT ADMINISTRATION AND RELATED COSTS		23,543	22,232	23,455	69,230		
3. GOVERNMENT FURNISHED MATERIALS AND SUPPLIES		N/A	N/A	N/A	N/A	N/A	N/A
4. CONTRACTOR USE OF GOVERNMENT OWNED EQUIPMENT AND FACILITIES		N/A	N/A	N/A	N/A	N/A	N/A
5. STANDBY MAINTENANCE COST		N/A	N/A	N/A	N/A	N/A	N/A
6. OTHER COSTS		N/A	N/A	N/A	N/A	N/A	N/A
7. SUBTOTAL (Sum of Lines 1 through 6)		23,543	22,232	23,455	69,230		
8. CONTRACT COST		229,058	200,283	200,282	629,624		
9. TOTAL CONTRACT OPERATIONS COST (Sum of Lines 7 and 8)		252,601	222,515	223,738	698,854		
GOVERNMENT OPERATIONS							
10. CIVILIAN PERSONNEL COSTS		198,534	187,480	197,792	583,806		
11. MATERIALS, SUPPLIES, UTILITIES AND OTHER SERVICES		38,963	33,397	33,397	105,757		
12. MAINTENANCE AND REPAIR		1,635	1,401	1,401	4,437		
13. OVERHEAD COSTS		N/A	N/A	N/A	N/A	N/A	N/A
14. OTHER COSTS		N/A	N/A	N/A	N/A	N/A	N/A
15. SUBTOTAL (Sum of Lines 10 through 14)		239,132	222,278	232,590	694,000		
16. INSURANCE (Line 15 Multiplied by 0.003)		717	667	698	2,082		
17. OTHER INDIRECT COSTS (Line 15 Multiplied by 0.02)		4,783	4,446	4,652	13,881		
18. DEPRECIATION		N/A	N/A	N/A	N/A	N/A	N/A
19. INTEREST		N/A	N/A	N/A	N/A	N/A	N/A
20. SUBTOTAL (Sum of Lines 15 through 19)		244,632	227,391	237,940	709,963		
21. FEDERAL TAXES (Line 8 Multiplied by 1.83)		4,191	3,665	3,665	11,522		
22. TOTAL GOVERNMENT OPERATIONS COST (Sum of Lines 20 and 21)		248,823	231,056	241,605	721,484		
REMARKS							
23. COST DIFFERENCES		(3,778)	8,541	17,867	22,630		
24. PERCENT DIFFERENCES		(1.5)	3.70	7.40	3.20		
Cost Comparison							
STUDY RESULT							
CONVERT TO							
CONTRACT							
DATE							
PREPARED BY							
APPROVED BY							

LINE 1. TRANSPORTATION

Transportation is a wash item because it was a wash item in the original cost analysis.

LINE 2. CONTRACT ADMINISTRATION AND RELATED COSTS

A full-time QAE is required for the review and control of Audiovisual Service products. A GS-9 (Step 4) is required to fill this position. A 7.3% pay raise is given on 1 October 1979 and a 9.1% pay raise given on 1 October 1980. A projected pay raise of 5.5% is used for 1 October 1981. The annual salary for a GS-9 (Step 4) in FY-79 was \$17,513. An 8.44% Government contribution factor is added to the personnel cost.

First 2 Months

$$\$17,513 \times 2/12 = \$ 2,918.83$$

FY-80

$$\$17,513 \times 1.073 = \underline{\$18,791.45}$$

$$\text{Total First Year} \quad \$21,710.28$$

Government Contribution Factor

$$\$21,710.28 \times 1.0844 = \$23,542.63$$

2nd Year FY-81

$$\$18,791.45 \times 1.091 \times 1.0844 = \$22,231.79$$

3rd Year FY-82

$$\$20,501.47 \times 1.055 \times 1.0844 = \$23,454.54$$

LINE 3. GOVERNMENT FURNISHED MATERIALS AND SUPPLIES

Contractor furnishes all necessary supplies and materials.

LINE 4. CONTRACTOR USE OF GOVERNMENT OWNED EQUIPMENT
AND FACILITIES

The same Government equipment and facilities would be used if the operation was an in-house operation; therefore, this line is a wash item.

LINE 5. STANDBY MAINTENANCE COST

This line is not applicable because the facilities will remain active.

LINE 6. OTHER COSTS

According to the original cost comparison, no other costs are incurred if this function were to go under contract services.

LINE 8. CONTRACT COST

The actual cost of the contract for the first year is \$229,057.74. For the second year, a new contractor was obtained. The estimated cost for this period is \$200,283.20. For the third year, the amount of the second year, \$200,283.20, is used.

LINE 10. CIVILIAN PERSONNEL COSTS

The number and grade of the personnel are from the original cost comparison. On 1 October 1979 a 7.3% pay raise

was given. On 1 October 1980 a 9.1% pay raise was given.
On 1 October 1981 a projected pay raise of 5.5% is used.

First 14 Months

Grade	#Auth	Annual Rate	2 Months
GS-11	1	\$21,188	\$ 3,531.50
GS-09	1	\$17,513	\$ 2,918.83
GS-07	1	\$14,317	\$ 2,386.00
GS-05	8	<u>\$92,456</u>	<u>\$15,409.33</u>
		\$145,474	\$24,245.66
		\$145,474 x 1.073	= <u>\$156,093.60</u>
			\$180,339.26

2nd Year

\$156,093.60 x 1.091 = \$170,298.12

3rd Year

\$170,298.12 x 1.055 = \$179,664.52

Other Cost

This area includes overtime. The rate for overtime for the 14 month period is calculated based on a GS-5's salary. The adjusted 14 month hourly wage is figured by adding the salary for the two month period and FY-80 and dividing by 2,427 (2,080 hours plus 347 hours for two months) times eight persons.

$$\frac{(\$99,205.29 + \$15,409.33)}{(8)(2,427)} = \$5.90$$

There is estimated 17 hours a month at time and a half, and six hours a month at time and three quarters.

$$\begin{aligned}
 \$5.90 \times 1.50 \times 17 \times 14 &= \$2,106.30 \\
 \$5.90 \times 1.75 \times 6 \times 14 &= \underline{\$ 867.30} \\
 & \$2,973.60
 \end{aligned}$$

Second Year:

$$\begin{aligned}
 \frac{\$92,456 \times 1.073 \times 1.091}{(8)(2,080)} &= \$6.50
 \end{aligned}$$

$$\begin{aligned}
 \$6.50 \times 1.50 \times 17 \times 14 &= \$ 1,989.00 \\
 \$6.50 \times 1.75 \times 6 \times 12 &= \underline{\$ 819.39} \\
 & \$ 2,808.39
 \end{aligned}$$

Third Year:

$$\begin{aligned}
 \frac{\$92,456 \times 1.073 \times 1.091 \times 1.055}{(8)(2,080)} &= \$6.86
 \end{aligned}$$

$$\begin{aligned}
 \$6.86 \times 1.50 \times \frac{17 \text{ hours}}{\text{month}} \times 12 \text{ months} &= \$ 2,099.16 \\
 \$6.86 \times 1.75 \times \frac{6 \text{ hours}}{\text{month}} \times 12 \text{ months} &= \underline{\$ 864.36} \\
 & \$ 2,963.52
 \end{aligned}$$

Total Civilian Personnel Costs:

	1st Year	2nd Year	3rd Year
Personnel Costs	\$180,339.26	\$170,298.12	\$179,664.52
Government Cont	15,220.65	14,373.16	15,163.68
Other Cost	<u>2,973.60</u>	<u>2,808.39</u>	<u>2,963.52</u>
	\$198,533.51	\$187,479.67	\$197,791.73

LINE 11. MATERIALS, SUPPLIES, UTILITIES AND OTHER SERVICES

The costs used in the original cost comparison are used.

1st Year: \$38,963

2nd Year: \$33,397

3rd Year: \$33,397

LINE 12. MAINTENANCE AND REPAIR

The figures used in the original cost comparison are used.

1st Year: \$1,635

2nd Year: \$1,401

3rd Year: \$1,401

LINE 13. OVERHEAD COSTS

The performance of functions such as those listed in AFM 26-1, paragraph 1-18c, will not be affected by this cost comparison.

LINE 14. OTHER COSTS

No other costs are identified for inclusion in this cost comparison.

LINE 15. SUBTOTAL

Summation of lines 10 through 14 for each respective year and the three year total.

Line No.	1st Year (14 mos)	2nd Year	3rd Year	Total
10	\$198,534	\$187,480	\$197,792	\$583,806
11	38,963	33,397	33,397	105,757
12	1,635	1,401	1,401	4,437
13	-0-	-0-	-0-	-0-
14	-0-	-0-	-0-	-0-
15	\$239,132	\$222,278	\$232,590	\$694,000

LINE 16. INSURANCE

This cost is calculated by using a factor of .003% applied to line 15.

	1st Year	2nd Year	3rd Year	Total
Line 15	\$239,132	\$222,278	\$232,590	\$694,000
Cost Factor	.003	.003	.003	.003
	\$ 717.40	\$ 666.83	\$ 697.77	\$ 2,082

LINE 17. OTHER INDIRECT COSTS

This is calculated by applying a 0.02% cost factor to line 15.

	1st Year	2nd Year	3rd Year	Total
Line 15	\$239,132	\$222,278	\$232,590	\$694,000
Cost Factor	.02	.02	.02	.02
	\$ 4,782.64	\$ 4,445.56	\$ 4,651.80	\$ 13,880

LINE 18. DEPRECIATION

This area is considered as a wash item.

LINE 19. INTEREST

No new or additional capital is to be invested by the Government, whether the function goes contract or remains in-house.

LINE 21. FEDERAL TAXES

The tax cost factor of 1.83% is derived from HQ MAC/XPMRS letter, paragraph 2e, 12 Jan 79, In-Service vs Contract Accomplishment of Audiovisual Services.

	1st Year	2nd Year	3rd Year	Total
Contract Cost (Line 8)	\$229,058	\$200,283	\$200,283	\$629,624
Cost Factor	<u>.0183</u>	<u>.0183</u>	<u>.0183</u>	<u>.0183</u>
	\$ 4,191.76	\$ 3,665.18	\$ 3,665.18	\$ 11,522.12

LINE 23. COST DIFFERENCES

(Total Government Operations Cost) - Total Contract

Operations Cost = Cost Differences

	1st Year	2nd Year	3rd Year	Total
Government	\$248,823	\$231,056	\$241,605	\$721,484
Contract	<u>252,601</u>	<u>222,515</u>	<u>223,738</u>	<u>698,854</u>
	\$ (3,778)	\$ 8,541	\$ 17,867	\$ 22,630

LINE 24. PERCENT DIFFERENCES

Cost Differences ÷ Total Government Operations Cost

	1st Year	2nd Year	3rd Year	Total
Cost Differences	\$ (3,778)	\$ 8,541	\$ 17,867	\$ 22,630
÷				
Total Govt Operations Cost	248,823	231,056	241,605	698,854
	<u>-.015</u>	<u>.037</u>	<u>.074</u>	<u>.032</u>

APPENDIX H
COST COMPARISON 2
Travis AFB

TRAVIS AFB CA

COMPARATIVE COST OF IN-HOUSE AND CONTRACTING-OUT
PERFORMANCE OF BAVSC

<u>(Date)</u>					
LINE #	COST ELEMENT	FIRST YEAR	SECOND YEAR	THIRD YEAR	TOTAL
<u>IN-HOUSE PERFORMANCE (CHAPTER III)</u>					
1.	DIRECT MATERIAL	38,963	33,397	33,397	105,757
2.	MATERIAL OVERHEAD	N/A	N/A	N/A	N/A
3.	DIRECT LABOR	180,339	170,298	170,298	520,935
4.	FRINGE BENEFITS ON DIRECT LABOR	46,888	44,277	44,277	135,442
5.	OPERATIONS OVERHEAD	6,706	6,360	6,360	19,426
6.	OTHER DIRECT COSTS	2,973	2,808	2,808	8,589
7.	GENERAL AND ADMINISTRATIVE EXPENSE	N/A	N/A	N/A	N/A
8.	INFLATION	N/A	1,336	11,688	13,024
9.	TOTAL	275,869	258,476	268,828	803,173
<u>PERFORMANCE BY CONTRACTING-OUT (CHAPTER IV)</u>					
10.	CONTRACT PRICE	229,058	200,283	200,283	629,624
11.	TRANSPORTATION	N/A	N/A	N/A	N/A
12.	CONTRACT ADMINISTRATION	36,517	33,843	34,876	105,236
13.	GOVERNMENT-FURNISHED PROPERTY	N/A	N/A	N/A	N/A
14.	STANDBY MAINTENANCE	N/A	N/A	N/A	N/A
15.	OTHER COSTS	N/A	N/A	N/A	N/A
16.	GENERAL AND ADMINISTRATIVE EXPENSE	N/A	N/A	N/A	N/A
17.	TOTAL	265,575	234,126	235,159	734,860

LINE #	COST ELEMENT	FIRST YEAR	SECOND YEAR	THIRD YEAR	TOTAL
<u>OTHER CONSIDERATIONS (CHAPTER V)</u>					
<u>ADDITIONS AND (DEDUCTIONS) TO IN-HOUSE PERFORMANCE</u>					
ADD:					
18.	COST OF CAPITAL	N/A	N/A	N/A	N/A
19.	ONE-TIME NEW-START COSTS	N/A	N/A	N/A	N/A
20.	OTHER COSTS	N/A	N/A	N/A	N/A
DEDUCT:					
21.	OTHER COSTS	(N/A)	(N/A)	(N/A)	(N/A)
22.	TOTAL	N/A	N/A	N/A	N/A
<u>ADDITIONS AND (DEDUCTIONS) TO CONTRACTING-OUT PERFORMANCE</u>					
ADD:					
23.	COST OF CAPITAL ON GOVT-FURNISHED FACILITIES	N/A	N/A	N/A	N/A
24.	UTILIZATION OF GOVERNMENT CAPACITY	N/A	N/A	N/A	N/A
25.	ONE-TIME CONVERSION COSTS	N/A	N/A	N/A	N/A
26.	OTHER COSTS	N/A	N/A	N/A	N/A
DEDUCT:					
27.	FEDERAL INCOME TAXES	(2,291)	(2,003)	(2,003)	(6,297)
28.	NET PROCEEDS FROM DISPOSAL OF ASSETS	(N/A)	(N/A)	(N/A)	(N/A)
29.	(ANNUAL VALUE)	(N/A)	(N/A)	(N/A)	(N/A)
30.	TOTAL	(2,291)	(2,003)	(2,003)	(6,297)
<u>MINIMUM COST DIFFERENTIAL (CHAPTER VI)</u>					
31.	NEW-START	N/A	N/A	N/A	N/A
32.	CONVERSION	22,723	21,458	22,316	66,497
<u>SUMMARY</u>					
33.	ADJUSTED COST OF IN-HOUSE PERFORMANCE (LINE 9 ± LINE 22 + 31)	275,869	258,476	268,828	803,164
34.	ADJUSTED COST OF CONTRACTING-OUT PERFORMANCE (LINE 17 ± LINE 30 + 32)	286,007	253,608	255,472	795,060
35.	COST OF IN-HOUSE OVER (UNDER) COST OF CONTRACTING-OUT PERFORMANCE (LINE 33 - LINE 34)	(10,138)	4,868	13,356	8,104

LINE 1. DIRECT MATERIAL

Since the activity went contract operations, the estimates from the original cost comparison are used.

1st Year: \$38,963

2nd Year: \$33,397

3rd Year: \$33,397

LINE 2. MATERIAL OVERHEAD

This item is a wash item in the original cost comparison; therefore, it is considered a wash item here.

LINE 3. DIRECT LABOR

The number and grade of civilian personnel are based on the original cost comparison. The direct labor cost calculations are in Cost Comparison 1, Appendix G, Line 10. Because inflation is calculated in Line 8, the 5.5% projected pay raise is not applied to the third year.

1st Year: \$180,339.27

2nd Year: \$170,298.13

3rd Year: \$170,298.13

LINE 4. FRINGE BENEFITS ON DIRECT LABOR

The cost factor of 26% is applied to the direct labor cost.

1st Year: \$180,339.27 x .26 = \$46,888.21

2nd Year: \$170,298.13 x .26 = \$44,277.49

3rd Year: \$170,298.13 x .26 = \$44,277.49

LINE 5. OPERATIONS OVERHEAD

The costs identified in this area are maintenance and repair and other indirect costs. The maintenance and repair costs are those identified in the original cost comparison. The other indirect costs are calculated by multiplying the factor 0.02 to the sum of direct material, direct labor and fringe benefits on direct labor.

1st Year:

$$(\$38,963 + \$180,339 + \$46,888) \times .02 = \$5,070.76$$

2nd Year:

$$(\$33,397 + \$170,298 + \$44,277) \times .02 = \$4,959.44$$

3rd Year:

$$(\$33,397 + \$170,298 + \$44,277) \times .02 = \$4,959.44$$

	1st Year	2nd Year	3rd Year
Indirect Cost	\$5,070.76	\$4,959.44	\$4,959.44
Maint & Repair	1,635.00	1,401.00	1,401.00
	<u>\$6,705.76</u>	<u>\$6,360.44</u>	<u>\$6,360.44</u>

LINE 6. OTHER COSTS

The costs of overtime are considered part of other direct costs. The calculations are shown in Appendix G, Line 10, as other costs. The third year is the same as the second year.

1st Year: \$2,973.60

2nd Year: \$2,808.39

3rd Year: \$2,808.39

LINE 7. GENERAL AND ADMINISTRATIVE EXPENSE

This item is considered a wash item.

LINE 8. INFLATION

The Cost Comparison Handbook establishes a 4% inflation factor to be applied to all the preceding costs for the second year, and an 8.2% inflation factor for the third year. Since inflation has been applied to the direct labor and fringe benefits for the second year, the inflation factor is applied only to material overhead. For the third year, the factor of 8.2% is applied to the direct material costs. Only a factor of 4% is applied to the remaining cost because inflation is added into the second year costs.

2nd Year: $\$33,397 \times .04 = \$1,335.88$

3rd Year: $\$33,397 \times .082 = \$2,738.55$

$(\$170,298 + \$44,277 + \$6,360 + \$2,808) \times .04 = 8,949.72$

\$11,688.27

LINE 10. CONTRACT PRICE

This cost is obtained from the contracting office at Travis AFB. The actual cost for the first year is \$229,058. The estimated cost for the third year is \$200,283.

LINE 11. TRANSPORTATION

This item is considered a wash item.

LINE 12. CONTRACT ADMINISTRATION

Contract administration costs are normally computed by multiplying .04 to the contract price. However, the requirement of a QAE is in addition to the normal cost. The contract administration cost is calculated by adding the cost of the QAE to 4% of the contract price. The salary of the QAE is found in Appendix G, Line 2. The third year QAE salary is computed by multiplying the salary for the second year by 4% for inflation.

1st Year:

$$(\$229,058 \times .04) + (\$21,710.28 \times 1.26) = \$36,517.27$$

2nd Year:

$$(\$200,283 \times .04) + (\$20,501.47 \times 1.26) = \$33,843.17$$

3rd Year:

$$(\$200,283 \times .04) + (\$20,501.47 \times 1.04 \times 1.26) = \$34,875.83$$

LINE 13. GOVERNMENT-FURNISHED PROPERTY

This item is considered a wash item.

LINE 14. STANDBY MAINTENANCE

The facilities will be used by the contractor; therefore, this requirement is not applicable.

LINE 15. OTHER COSTS

No other costs are identified for addition to this cost comparison.

LINE 18 THROUGH LINE 24

These items were not considered in the original cost comparison. In order to make a comparison between Cost Comparison 1 and 2, these items are considered not applicable.

LINE 25. ONE-TIME CONVERSION COSTS

None are identified for this cost comparison.

LINE 26. OTHER COSTS

No other costs are identified for addition to this cost comparison.

LINE 27. FEDERAL INCOME TAXES

According to Appendix 1, Cost Comparison Handbook, the tax rate is 1%. This is applied to the contract price, Line 10.

1st Year: \$229,058 x .01 = \$2,290.58

2nd Year: \$200,283 x .01 = \$2,002.83

3rd Year: \$200,283 x .01 = \$2,002.83

LINE 28. NET PROCEEDS FROM DISPOSAL OF ASSETS

Because the Government equipment will be furnished to the contractor, this line is not applicable.

LINE 29. OTHER COSTS

No other costs are identified for deduction in this cost comparison.

LINE 32. CONVERSION

A cost margin equal to 10% of the in-house personnel related costs is added to the cost comparison.

1st Year:

$$(\$180,339 + \$46,888) \times .10 = \$22,722.70$$

2nd Year:

$$(\$170,298 + \$44,277) \times .10 = \$21,457.50$$

3rd Year:

$$(\$170,298 + \$44,277) \times 1.04 \times .10 = \$22,315.80$$

APPENDIX I
COST COMPARISON 1
McGuire AFB

COST ANALYSIS WORKSHEET		INSTALLATION McGuire AFB NJ	ACTIVITY Audiovisual Center		
COST ELEMENTS		YEARS OF OPERATION			
		FIRST	SECOND	THIRD	3 YEAR TOTAL
CONTRACT OPERATIONS					
1. TRANSPORTATION					
		N/A	N/A	N/A	N/A
2. CONTRACT ADMINISTRATION AND RELATED COSTS					
		19,245	18,173	19,173	56,591
3. GOVERNMENT FURNISHED MATERIALS AND SUPPLIES					
		N/A	N/A	N/A	N/A
4. CONTRACTOR USE OF GOVERNMENT OWNED EQUIPMENT AND FACILITIES					
		N/A	N/A	N/A	N/A
5. STANDBY MAINTENANCE COST					
		N/A	N/A	N/A	N/A
6. OTHER COSTS					
		N/A	N/A	N/A	N/A
7. SUBTOTAL (Sum of Lines 1 through 6)					
		19,245	18,173	19,173	56,591
8. CONTRACT COST					
		253,425	229,427	233,241	716,093
9. TOTAL CONTRACT OPERATIONS COST (Sum of Lines 7 and 8)					
		272,670	247,600	252,414	772,684
GOVERNMENT OPERATIONS					
10. CIVILIAN PERSONNEL COSTS					
		246,112	232,084	245,292	723,488
11. MATERIALS, SUPPLIES, UTILITIES AND OTHER SERVICES					
		30,583	26,214	26,214	83,011
12. MAINTENANCE AND REPAIR					
		159	136	136	431
13. OVERHEAD COSTS					
		N/A	N/A	N/A	N/A
14. OTHER COSTS					
		N/A	N/A	N/A	N/A
15. SUBTOTAL (Sum of Lines 10 through 14)					
		276,854	258,434	271,642	806,930
16. INSURANCE (Line 15 Multiplied by 0.003)					
		831	775	815	2,421
17. OTHER INDIRECT COSTS (Line 15 Multiplied by 0.02)					
		5,537	5,169	5,433	16,139
18. DEPRECIATION					
		N/A	N/A	N/A	N/A
19. INTEREST					
		N/A	N/A	N/A	N/A
20. SUBTOTAL (Sum of Lines 15 through 19)					
		283,222	264,378	277,890	825,490
21. FEDERAL TAXES (Line 8 multiplied by 1)					
		4,638	4,199	4,268	13,105
22. TOTAL GOVERNMENT OPERATIONS COST (Sum of Lines 20 and 21)					
		287,860	268,577	282,158	838,595
23. COST DIFFERENCES					
		15,190	20,977	29,744	65,911
24. PERCENT DIFFERENCES					
		5.3%	7.8%	10.5%	7.9%
REMARKS					
Cost Comparison 1					

STUDY RESULT			
CONTRACT	CONVERT TO	REMAIN	
DATE	IN-HOUSE	CONTRACT SIGNATURES	IN-HOUSE
PREPARED BY		APPROVED BY	

LINE 1. TRANSPORTATION

Contractor will provide transportation in accordance with Request for Technical Proposal (RFTP) and the costs are included in his bid.

LINE 2. CONTRACT ADMINISTRATION AND RELATED COSTS

A full-time QAE is required for the administration of the Audiovisual Service contract. A GS-07 is used to fill this position. A pay raise of 7.3% is given on 1 October 1979. On 1 October 1980, a 9.1% pay raise is awarded. For 1 October 1981, a 5.5% projected pay raise is used. An annual salary for a GS-07 (Step 4) in 1978 was \$14,316. A required 8.44% Government contribution factor is added to the personnel cost.

First 2 Months:

$$\$14,316 \times 2/12 = \$ 2,386.00$$

Next 12 Months:

$$\begin{aligned} \$14,316 \times 1.073 &= \$15,361.07 \\ &\underline{\hspace{1.5cm}} \\ &\$17,747.07 \end{aligned}$$

2nd Year:

$$\$15,361.07 \times 1.091 = \$16,758.93$$

3rd Year:

$$\$16,758.93 \times 1.055 = \$17,680.67$$

TOTAL COSTS	1st Year	2nd Year	3rd Year	Total
Salary	\$17,747.07	\$16,758.93	\$17,680.67	\$52,186.67
x 8.44%	1,497.85	1,414.45	1,492.25	4,404.55
	<u>\$19,244.92</u>	<u>\$18,173.38</u>	<u>\$19,172.92</u>	<u>\$56,591.22</u>

LINE 3. GOVERNMENT-FURNISHED MATERIALS AND SUPPLIES

Contractor will furnish all materials in accordance with the RFTP.

LINE 4. CONTRACTOR USE OF GOVERNMENT-OWNED EQUIPMENT AND FACILITIES

Costs of Government facilities used by the contractor are assumed to be the same as the costs of the service performed in-house. Therefore, Line 4 is a wash item.

LINE 5. STANDBY MAINTENANCE COST

The facilities will be used by the contractor; therefore, this requirement is not applicable (N/A).

LINE 6. OTHER COSTS

According to the original cost comparison, no other costs are incurred if this function were to go under contract services.

LINE 8. CONTRACT COST

According to the Contracting Office at McGuire AFB, the actual cost of the contract for the first year is \$253,425.04. The estimated cost for the second year is \$229,427. The third

year costs are calculated by taking the estimated second year cost and adding the difference between the second and third year costs from the original cost comparison. This is accomplished to add in the contractor's preplanned increase to the contract price.

$$\$229,427 + (\$219,864 - \$216,050) = \$233,241$$

	1st Year	2nd Year	3rd Year	Total
Contract Cost	\$253,425	\$229,427	\$233,241	\$716,093

LINE 10. CIVILIAN PERSONNEL COSTS

The number and grade of civilian personnel are based on the original cost comparison. The general schedule employees are given a 7.3% pay raise on 1 October 1979 and a 9.1% pay raise on 1 October 1980. A projected pay raise of 5.5% is used for 1 October 1981. The wage board employees are given a 7.3% pay raise on 1 January 1980 and a 9.1% pay raise on 1 January 1981. A projected 5.5% pay raise is used for 1 January 1982. A Government contribution factor of 8.44% is included.

First 14 Months (1 Year):				
Grade	#	Auth	Annual Rate (78)	2 Months
GS-09	2		\$ 35,026	\$ 5,837.67
GS-07	2		\$ 28,632	\$ 4,772.00
GS-06	4		\$ 51,528	\$ 8,588.00
GS-05	1		\$ 11,557	\$ 1,926.17
GS-03	1		\$ 9,203	\$ 1,533.83
			\$135,946	\$ 22,657.67
			\$135,946 x 1.073	= 145,870.06
				\$168,527.73

Grade	# Auth	Annual Rate	5 Months
WG-08	1	\$15,910.56	\$ 6,629.40
WG-05	1	\$14,323.68	\$ 5,968.20
WG-04	1	\$13,801.92	\$ 5,750.70
		<u>\$44,035.92</u>	<u>\$18,348.30</u>
		$\$44,035.92 \times 1.073 \times 9/12$	$= \$35,437.91$
			<u>\$53,786.21</u>

Total Costs:

$$\$168,527.73 + \$53,786.21 = \$222,313.94$$

Second Year:

GS Grades:	\$145,870.06 x 1.091	=	\$159,144.24
WG Grades:	\$47,250.54 x 3/12	=	\$ 11,812.64
	\$47,250.54 x 1.091 x 9/12	=	\$ 38,662.75
			<u>\$209,619.63</u>

Third Year:

GS Grades:	\$159,144.24 x 1.055	=	\$167,897.17
WG Grades:	\$51,550.34 x 3/12	=	\$ 12,887.59
	\$51,550.34 x 1.055 x 9/12	=	\$ 40,789.21
			<u>\$221,573.97</u>

Other Costs:

This area includes overtime, call-back pay and site support. These duties are expected to be performed by a GS-06 with an hourly rate of \$6.17 (annual salary/2088 hours).

Other Costs	Freq	Hour Diff	Overtime Factor	Shift Diff	Rate
Overtime Pay	24	2	1.5		\$ 444.21
Call-Back Pay	63	2	1.5	1.075	\$1,253.50
After Duty Pay	71	2	1.5	1.075	\$1,412.67
Site Support Pay	7	16			\$ 691.00
					<u>\$3,801.38</u>
Per Diem Cost (2 men)	7 days @ \$23/day				\$ 322.00

First Year:

$$\$3,801.38 \times 2/12 + (\$3,801.38 \times 1.073) = \$ 4,712.44$$

Second Year:

$$\$3,801.38 \times 1.073 \times 1.091 = \$ 4,450.06$$

Third Year

$$\$3,801.38 \times 1.073 \times 1.091 \times 1.055 = \$ 4,694.81$$

\$13,857.31

Total Civilian Personnel Costs

	1st Year	2nd Year	3rd Year
Personnel Costs	\$222,313.94	\$209,619.63	\$221,573.97
Government Cont	\$ 18,763.30	\$ 17,691.90	\$ 18,700.84
Other Cost	\$ 4,712.44	\$ 4,450.06	\$ 4,694.81
Per Diem Cost	\$ 322.00	\$ 322.00	\$ 322.00
Total	<u>\$246,111.68</u>	<u>\$232,083.59</u>	<u>\$245,291.62</u>

LINE 11. MATERIALS, SUPPLIES, UTILITIES AND OTHER SERVICES

Since this actually went contract, the estimates from the original cost comparison are used.

1st Year: \$30,583

2nd Year: \$26,214

3rd Year: \$26,214

LINE 12. MAINTENANCE AND REPAIR

Again, the calculations from the original cost comparison are used.

1st Year: \$159

2nd Year: \$136

3rd Year: \$136

LINE 13. OVERHEAD COSTS

It was determined in the original cost comparison that administrative and related activities will be absorbed by existing personnel. The same assumption is made here.

1st Year: N/A

2nd Year: N/A

3rd Year: N/A

LINE 14. OTHER COSTS

No other costs are identified for inclusion in this cost comparison.

LINE 15. SUBTOTAL

Line	1st Year	2nd Year	3rd Year	Total
10	\$246,112	\$232,084	\$245,292	\$723,488
11	30,583	26,214	26,214	83,011
12	159	136	136	431
13	N/A	N/A	N/A	N/A
14	N/A	N/A	N/A	N/A
15	<u>\$276,854</u>	<u>\$258,434</u>	<u>\$271,642</u>	<u>\$806,930</u>

LINE 16. INSURANCE

This cost is calculated by using a factor of .003 applied to Line 15.

	1st Year	2nd Year	3rd Year	Total
Line 15	\$276,854	\$258,434	\$271,642	\$806,930
x .003	.003	.003	.003	.003
	<u>\$ 830.56</u>	<u>\$ 775.30</u>	<u>\$ 814.93</u>	<u>\$ 2,420.79</u>

LINE 17. OTHER INDIRECT COSTS

This is calculated by multiplying the standard factor, 0.02 to Line 15.

	1st Year	2nd Year	3rd Year	Total
Line 15	\$276,854	\$258,434	\$271,642	\$806,930
x .02	.02	.02	.02	.02
	<u>\$ 5,537.08</u>	<u>\$ 5,168.68</u>	<u>\$ 5,432.84</u>	<u>\$ 16,138.60</u>

LINE 18. DEPRECIATION

This item is considered a wash item.

LINE 19. INTEREST

New equipment is not considered in this study.

LINE 20. FEDERAL TAXES

The tax cost factor of 1.83% is obtained from HQ MAC/XPMRS letter, paragraph 2e, 12 Jan 79, In-Service vs Contract Accomplishment of Audiovisual Services.

	1st Year	2nd Year	3rd Year	Total
Line 8	\$253,425	\$229,427	\$233,241	\$716,093
x .0183	<u>.0183</u>	<u>.0183</u>	<u>.0183</u>	<u>.0183</u>
	\$ 4,637.68	\$ 4,198.52	\$ 4,268.31	\$ 13,104.50

LINE 23. COST DIFFERENCES

	1st Year	2nd Year	3rd Year	Total
In-House Cost	\$287,860	\$268,577	\$282,158	\$838,595
Contract Cost	<u>\$272,670</u>	<u>\$247,600</u>	<u>\$252,414</u>	<u>\$772,684</u>
	\$ 15,190	\$ 20,977	\$ 29,744	\$ 65,911

LINE 24. PERCENT DIFFERENCES

	1st Year	2nd Year	3rd Year	Total
Cost Diff	\$ 15,190	\$ 20,977	\$29,744	\$ 65,911
÷ Line 22	<u>\$287,860</u>	<u>\$268,577</u>	<u>\$282,158</u>	<u>\$838,595</u>
	5.3%	7.8%	10.5%	7.9%

APPENDIX J
COST COMPARISON 2
McGuire AFB

MOGUIRE AFB NJ

COMPARATIVE COST OF IN-HOUSE AND CONTRACTING-OUT
PERFORMANCE OF BAVSC

LINE #	COST ELEMENT	(Date)			
		FIRST YEAR	SECOND YEAR	THIRD YEAR	TOTAL
<u>IN-HOUSE PERFORMANCE (CHAPTER III)</u>					
1.	DIRECT MATERIAL	30,583	26,214	26,214	83,011
2.	MATERIAL OVERHEAD	N/A	N/A	N/A	N/A
3.	DIRECT LABOR	222,314	209,620	209,620	641,554
4.	FRINGE BENEFITS ON DIRECT LABOR	57,802	54,501	54,501	166,804
5.	OPERATIONS OVERHEAD	6,373	5,943	5,943	18,259
6.	OTHER DIRECT COSTS	5,034	4,772	4,772	14,578
7.	GENERAL AND ADMINISTRATIVE EXPENSE	N/A	N/A	N/A	N/A
8.	INFLATION	N/A	1,049	13,138	14,187
9.	TOTAL	322,106	302,099	314,188	932,393
<u>PERFORMANCE BY CONTRACTING-OUT (CHAPTER IV)</u>					
10.	CONTRACT PRICE	253,425	229,427	233,241	716,093
11.	TRANSPORTATION	N/A	N/A	N/A	N/A
12.	CONTRACT ADMINISTRATION	32,498	30,293	31,291	94,082
13.	GOVERNMENT-FURNISHED PROPERTY	N/A	N/A	N/A	N/A
14.	STANDBY MAINTENANCE	N/A	N/A	N/A	N/A
15.	OTHER COSTS	N/A	N/A	N/A	N/A
16.	GENERAL AND ADMINISTRATIVE EXPENSE	N/A	N/A	N/A	N/A
17.	TOTAL	285,923	259,720	264,532	810,175

LINE #	COST ELEMENT	FIRST YEAR	SECOND YEAR	THIRD YEAR	TOTAL
<u>OTHER CONSIDERATIONS (CHAPTER V)</u>					
<u>ADDITIONS AND (DEDUCTIONS) TO IN-HOUSE PERFORMANCE</u>					
ADD:					
18.	COST OF CAPITAL	N/A	N/A	N/A	N/A
19.	ONE-TIME NEW-START COSTS	N/A	N/A	N/A	N/A
20.	OTHER COSTS	N/A	N/A	N/A	N/A
DEDUCT:					
21.	OTHER COSTS	(N/A)	(N/A)	(N/A)	(N/A)
22.	TOTAL	N/A	N/A	N/A	N/A
<u>ADDITIONS AND (DEDUCTIONS) TO CONTRACTING-OUT PERFORMANCE</u>					
ADD:					
23.	COST OF CAPITAL ON GOVT-FURNISHED FACILITIES	N/A	N/A	N/A	N/A
24.	UTILIZATION OF GOVERNMENT CAPACITY	N/A	N/A	N/A	N/A
25.	ONE-TIME CONVERSION COSTS	N/A	N/A	N/A	N/A
26.	OTHER COSTS	N/A	N/A	N/A	N/A
DEDUCT:					
27.	FEDERAL INCOME TAXES	(2,534)	(2,294)	(2,334)	(7,162)
28.	NET PROCEEDS FROM DISPOSAL OF ASSETS	(N/A)	(N/A)	(N/A)	(N/A)
29.	(ANNUAL VALUE)	(N/A)	(N/A)	(N/A)	(N/A)
30.	TOTAL	(2,534)	(2,294)	(2,334)	(7,162)
<u>MINIMUM COST DIFFERENTIAL (CHAPTER VI)</u>					
31.	NEW-START	N/A	N/A	N/A	N/A
32.	CONVERSION	28,012	26,412	27,469	81,893
<u>SUMMARY</u>					
33.	ADJUSTED COST OF IN-HOUSE PERFORMANCE (LINE 9 + LINE 22 + 31)	322,106	302,099	314,188	938,393
34.	ADJUSTED COST OF CONTRACTING-OUT PERFORMANCE (LINE 17 + LINE 30 + 32)	311,401	283,838	289,667	884,906
35.	COST OF IN-HOUSE OVER (UNDER) COST OF CONTRACTING-OUT PERFORMANCE (LINE 33 - LINE 34)	10,705	18,261	24,521	53,487

LINE 1. DIRECT MATERIAL

Since the activity went contract operations, the estimates from the original cost comparison were used.

1st Year: \$30,583

2nd Year: \$26,214

3rd Year: \$26,214

LINE 2. MATERIAL OVERHEAD

This item is a wash item in the original cost comparison; therefore, it is considered a wash item here.

LINE 3. DIRECT LABOR

The number and grade of civilian personnel are based on the original cost comparison. The direct labor cost calculations are in Cost Comparison 1, Appendix I. Since inflation is calculated in Line 8, the 5.5% projected pay raise is not applied to the third year.

1st Year: \$222,313.94

2nd Year: \$209,619.63

3rd Year: \$209,619.63

LINE 4. FRINGE BENEFITS ON DIRECT LABOR

The cost factor of 26% is applied to the direct labor cost.

1st Year: \$222,313.94 x .26 = \$57,801.62

2nd Year: \$209,619.63 x .26 = \$54,501.10

3rd Year: \$209,619.63 x .26 = \$54,501.10

LINE 5. OPERATIONS OVERHEAD

The costs identified in this are maintenance and repair and other indirect costs. The maintenance and repair costs are those identified in the original cost comparison. The other indirect costs are calculated by multiplying the factor 0.02 to the sum of direct material, direct labor and fringe benefits on direct labor.

1st Year:

$$(\$30,583 + \$222,314 + \$57,802) \times .02 = \$6,213.98$$

2nd Year:

$$(\$26,214 + \$209,620 + \$54,501) \times .02 = \$5,806.70$$

3rd Year:

$$(\$26,214 + \$209,620 + \$54,501) \times .02 = \$5,806.70$$

	1st Year	2nd Year	3rd Year
Indirect Costs	\$6,213.98	\$5,806.70	\$5,806.70
Maint & Repair	159.00	136.00	136.00
	<u>\$6,372.98</u>	<u>\$5,942.70</u>	<u>\$5,942.70</u>

LINE 6. OTHER DIRECT COSTS

The cost of overtime is considered part of other direct costs. The calculations are shown in Appendix I, Line 10, as other costs and per diem cost. The third year cost is considered the same as the second year cost.

1st Year: \$5,034.44

2nd Year: \$4,772.06

3rd Year: \$4,772.06

LINE 7. GENERAL AND ADMINISTRATIVE EXPENSE

This item is considered a wash item.

LINE 8. INFLATION

The Cost Comparison Handbook establishes a 4% inflation factor to be applied to all the preceding costs for the second year and 8.2% inflation factor for the third year. Since actual costs are applied for the direct labor for the second year, inflation is applied to material overhead. For the third year, the factor of 8.2% is applied to the direct material cost. Only a factor of 4% is applied to the remaining cost because actual costs are used in the second year.

2nd Year: $\$26,214 \times .04 = \$1,048.56$

3rd Year: $\$26,214 \times .082 = \$2,149.55$

$(\$209,620 + \$54,501 + \$5,807 + \$4,772) \times .04 = \$10,988.00$

\$13,137.55

LINE 10. CONTRACT PRICE

This cost is obtained from the contracting office at McGuire AFB. The actual cost for the first year is \$253,425. The estimate for the second year is \$229,427. The third year estimate is calculated by taking the difference of the second and third year in the original cost comparison and adding to the estimate obtained for the second year.

3rd Year: $(\$219,864 - \$216,050) + \$229,427 = \$233,241$

LINE 11. TRANSPORTATION

This item is considered a wash item.

LINE 12. CONTRACT ADMINISTRATION

Contract administration costs are normally computed by multiplying 0.04 to the contract price. However, the requirement of a QAE is in addition to the normal cost. The contract administration cost is calculated by adding the cost of the QAE to 4% of the contract price. The salary of the QAE is found in Appendix I, Line 2. The third year QAE salary is computed by multiplying .04 to the second year salary.

1st Year: $(\$253,425 \times .04) + (\$17,747.07 \times 1.26) = \$32,498.31$

2nd Year: $(\$229,427 \times .04) + (\$16,758.93 \times 1.26) = \$30,293.33$

3rd Year: $(\$233,241 \times .04) + (\$16,758.93 \times 1.04 \times 1.26) = \$31,290.54$

LINE 13. GOVERNMENT-FURNISHED PROPERTY

This item is considered a wash item.

LINE 14. STANDBY MAINTENANCE

The facilities will be used by the contractor; therefore, this requirement is not applicable.

LINE 15. OTHER COSTS

No other costs are identified for addition to this cost comparison.

LINE 16. GENERAL AND ADMINISTRATIVE EXPENSE

This item is a wash item.

LINE 18 THROUGH LINE 24.

These items were not considered in the original cost comparison. In order to make a comparison between Cost Comparisons 1 and 2, these items are considered not applicable.

LINE 25. ONE-TIME CONVERSION COSTS

None were identified for this cost comparison.

LINE 26. OTHER COSTS

No other costs are identified for addition to this cost comparison.

LINE 27. FEDERAL INCOME TAXES

According to Appendix I of the Cost Comparison Handbook, the tax rate is 1%. This is applied to the contract price, Line 10.

1st Year: $\$253,425 \times .01 = \$2,534.25$

2nd Year: $\$229,427 \times .01 = \$2,294.27$

3rd Year: $\$233,414 \times .01 = \$2,334.14$

LINE 28. NET PROCEEDS FROM DISPOSAL OF ASSETS

Because the Government equipment will be furnished to the contractor, this line is not applicable.

LINE 29. OTHER COSTS

No other costs are identified for deduction in this cost comparison.

LINE 32. CONVERSION

A cost margin equal to 10% of the in-house personnel-related cost is added to the cost comparison.

1st Year:	$(\$222,314 + \$57,802) \times .10$	=	\$28,011.60
2nd Year:	$(\$209,620 + \$54,501) \times .10$	=	\$26,412.10
3rd Year:	$(\$209,620 + \$54,501) \times 1.04 \times .10$	=	\$27,468.58

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AIR FORCE INST OF TECH WRIGHT-PATTERSON AFB OH SCHOOL--ETC F/G 5/9
BASE AUDIOVISUAL SERVICE CENTER CONTRACT CONVERSIONS: A FOLLOW--ETC(U)
JUN 81 C H CHRISTOPHER, L R OLSON
AFIT-LSSR-47-81

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APPENDIX K
INTERVIEW FORMAT AND SEQUENCE

...How long have you been at _____ AFB?

...Have you been in your present job the entire time or been a user of AV services the entire time?

...Would you briefly tell me what AV products and services you use and what you use them for?

1. (a) About how frequently are you a customer of the Base Audiovisual Service Center, and could you break that figure out for Film Library, Graphic Arts and the Photo Section?

(b) On a monthly basis, for about what percentage of your requirements, or how many times a month do you require the contractor to work outside the normal work week?

(c) This next question asks for a value judgment on your part, and that is: About how necessary to your job or mission is it to have AV services available, or what impact would it have on your job or mission to be without these services?

(d) This question asks for a definition from you. Would you define for me, in your own words please, for your particular uses, just what is good quality AV service?

...Sir/Ma'am/Sergeant, are you familiar with or do you understand how to use the kind of 1-5 rating scale in front of you where you are asked to state whether you agree or disagree with a statement as it is presented to you?

2. (a) Using that 1-5 scale, then, how would you agree or disagree to the statement that the overall service you have received in the past year from the base audiovisual service

center has been generally acceptable?

...The next series of statements asks you to agree or disagree to specific aspects of Film Library, Graphic Arts and Photo Service. We will start with Film Library.

Film Library:

- 1) Would you agree or disagree that the personnel in the Film Library are generally courteous and helpful?
- 2) Would you agree or disagree that loan equipment and films are generally available when you need them?
- 3) Would you agree or disagree that the working condition of the loan equipment is generally good?

Graphic Arts:

- 1) Would you agree or disagree that the personnel in the Graphic Arts section are generally courteous and helpful?
- 2) Would you agree or disagree that the finished work from Graphics generally accurately represents what was requested?
- 3) Would you agree or disagree that the finished work from Graphics is generally usable for the purpose for which it was intended?
- 4) Would you agree or disagree that work from the Graphics Section is generally finished by the time requested or promised?
- 5) Would you agree or disagree that, with legitimate "short fuse" or "short notice" requirements, the Graphics Section generally provides rush or non-routine service?

Photo Service:

- 1) Would you agree or disagree that the personnel in the Photo Service Section are generally courteous and helpful?
- 2) Would you agree or disagree that finished photographic work accurately portrays what was requested?
- 3) Would you agree or disagree that finished work from the Photo Section is generally usable for the purpose for which it was intended?
- 4) Would you agree or disagree that work from the Photo Section is generally finished by the time requested?
- 5) Would you agree or disagree that, with legitimate "short fuse" or "short notice" requirements, the Photo Section generally provides rush or non-routine service?

...Thank you, Sir/Ma'am/Sergeant, this next series of questions looks at some of your experiences with AV services.

3. (a) Have you had experience with any other type of AV service center, such as an all military, a mixed military/civil service, or different contract? Where?

(b) (if yes to 3a) Using the 1-5 agreement scale we've been working with, would you agree or disagree that the overall service provided by this (these) other AV service center(s) was generally acceptable?

(c) (if yes to 3a) In your own words, how would you compare the acceptability of the service provided by this (these) other AV service center(s) with that of your present contract AV service center?

4. Have you observed or experienced any benefits or improvements to AV service that you can attribute to the fact that your base AV service center is a contract operation?

5. (a) Have you observed or experienced any problems, difficulties, or inconveniences in using the present AV service center that you can attribute to the fact that it is a contract operation?

(b) Has it (they) been resolved?

(c) Could it (they) have been prevented?

...This question is not on your information sheet, but from your experience with the AV service center, do you feel the contractor has hired an adequate number of people to handle the workload at your base?

6. Thank you. Do you have any additional general comments on the quality of the service and products from the AV service center that you would like to make, or that maybe we haven't touched on yet?

...That concludes the questions I have, Sir/Ma'am/Sergeant. I'd like to thank you for your time and your candid comments, and have a good day.

APPENDIX L

DEGREE OF AGREEMENT
ON SPECIFIC AV SERVICE QUALITY POINTS

MCCHORD AFB

Inter-view Subject	Info pkg Item #	Film Library					Graphic Arts					Photo Service					Overall Service	
		1)	2)	3)	1)	2)	3)	4)	5)	1)	2)	3)	4)	5)	2a)			
A.		5	4	3	5	5	5	5	5	5	5	5	5	5	5 minus (-)			
B.		not used			not used			not used			5	5	5	5	5			
C.		5	3	5	5	5	5	5	not used	4	5	5	5	not used	4			
D.		4	3	2½	2	2	3	4	3	5	4	5	5	5	4			
E.		4	4	3	4	4	4	4	3	4	4	4	4	4	3+			
F.		4½	4½	5	5	5	5	5	5	5	5	5	5	4	5			
G.		5	4	4	5	5	5	4	5	5	5	5	4	not used	5			
H.		5	5	not used	5	5	5	5	5	5	5	5	5	4½	5			
I.		5	5	5	5-	5-	5-	5-	5-	not used			not used		5			
J.		5	5	2	not used			not used			5	4	4	5	not used	5		
K.		5	5	5	not used			not used			not used			not used		5		
L.		5	5	4	5	5	5	4	5	4	5	5	5	4	5			
M		not used			5	5	5	5	4	5	3	3	5	4	4			
Average		4.77	4.32	3.5	4.56	4.56	4.67	4.56	4.42	4.73	4.54	4.64	4.82	4.44	4.63			

TRAVIS AFB

Inter-view Subject	Info Pkg Item #	Film Library			Graphic Arts					Photo Service					Overall Service 2a)
		1)	2)	3)	1)	2)	3)	4)	5)	1)	2)	3)	4)	5)	
A.		5	4	5	5	5	5	5	5	5	5	5	5	5	
B.		not used			5	5	4	5	5	not used					4
C.		5	5	4	5	5	5	5	not used	5	5	5	5	5	4½
D.		5	5	5	not used					5	5+	5+	5	5	5 minus (-)
E.		not used			5	5	5	5	4	not used					5-
F.		5	1	1	5	3	2	4	2	5	4	3	3	3	2½
G.		4	2½	4	4	3	4	4	not used	4	2½	4	4	not used	3-
Average		4.8	3.5	3.8	4.83	4.33	4.18	4.67	4	4.8	4.3	4.4	4.2	4.25	4.04

POPE AFB

Inter-view Subject	Info Pkg Item #	Film Library			Graphic Arts			Photo Service					Overall Service	
		1)	2)	3)	1)	2)	3)	4)	5)	1)	2)	3)		4)
A.		5	5	5	not used			5	5	5	5	5	5	5
B.		5	5	5	5	5	5+	5+	2	3	2	2	3	4
C.		5	5	5	not used			5	5	5	5	5	5	5 minus (-)
D.		not used			not used			5	5	5	4	5	4-	
E.		5	5	5	5	5	4	5	4	5	5	5	4	4
F.		5	5	5	5	5	5	5	5	5	5	5	5	5
G.		5	5	4	not used			5	5	5	5	5	5	5
H.		5	4	3	not used			5	5	5	2	4	4-	
I.		4	4	4	5	5	4	5	5	2	2½	2	1½	2
J.		5	5	5	5	5	5	5	5	5	5	5	5	5
Average		4.89	4.78	4.56	5	5	4.8	4.8	4.8	4.7	4.5	4.45	4	4.25

MCQUIRE AFB

Inter-view Subject	Info Pkg Item #	Film Library			Graphic Arts					Photo Service					Overall Service
		1)	2)	3)	1)	2)	3)	4)	5)	1)	2)	3)	4)	5)	
A.		5	5	5	5	5	5	4	5	4	3	3	2	4	4
B.		5	5	4½	5	5	5	5	5		not used				5
C.		5	5	5	They won't support us					5	3	2	3	2	4
D.		5	5	5	5	5	5	5	4		not used				5
E.		5	4½	5	5	3½	4½	3	4½	4	5	5	3	3	4½
F.		5	5	5	5	5	5	5	5	5	5	4	5	4	5
G.		5	5	5	5	5	5	5	5	5	5	4	5	4	5
H.		not used			5	4	4	5	4	5	5	5	5	4	5
I.		not used			5	5	5	5	5	4	4	4	4	4	5
K.		5	5	5	5+	5	5	4	2	5+	5	5	5	2	4
L.		5	3½	5	not used						not used				5-
Average		5	4.78	4.94	5	4.72	4.83	4.55	4.39	4.63	4.34	4	4	3.38	4.66

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